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undertook the task of editor, and with laudable self-restraint confined his work to the references. It may be permitted to believe that the author would not have allowed the same note, interesting though it be, to appear twice, pp. 296 and 326; it may be hoped that he would have made p. 131, n. 2, more intelligible. Of misprints we have noted only two, p. 301, l. 5, 'the preference of interment by cremation,' and p. 417, 'such names [as 'child of Hor'] were not commonly borne by Christians,' where, as the appended note shows clearly enough, Dr Bigg wrote or meant to write 'not uncommonly.' The index is hardly full enough to be of much real value. Dr Bigg's work is a solid and weighty contribution to Church History; perhaps it is the closer printing and crowded appearance of the page, when compared with the volumes of Gwatkin and Duchesne, which gives it the impression of being not only weighty but ponderous—and ponderous, in the subjects that suited him, Dr Bigg certainly was not.

Thirty years ago Mr Gwatkin, as he then was, published a contribution to ecclesiastical history of the very first order in his 'Studies of Arianism.' Just as Bigg's 'Christian Platonists of Alexandria,' which we are glad to welcome in a second edition, will probably survive his more directly historical work of which we have been speaking, so Gwatkin's 'Studies of Arianism' set a standard of such high attainment that it is hardly matter of wonder that its author should have produced nothing since which can successfully stand comparison with it. 'Early Church History,' his present 'œuvre de vulgarisation,' has indubitable merits. It is fresh; it is readable; it has all the attractive note of personal appeal; it is illuminated with plenty of the side-lights that are so helpful a part of the lecturer's equipment. But if it has the merits, it has also the defects of lectures. It seldom goes much below the surface of things; its habitual repetitions may have been an assistance to the hearer, especially if he was a beginner, but they are a hindrance and even a nuisance to the attentive reader. It may be desirable in a lecturer to be as cock-sure as Prof. Gwatkin shows himself in these volumes; there is here no balancing of alternative possibilities; the phraseology of doubt, the 'perhaps' or the

'probably,' is absent from his vocabulary. Much critical work is no doubt disfigured by the opposite reluctance to commit itself to any definite conclusions; yet where the problems are so many and the evidence often so slight and so indirect as in the early stages of the development of the Christian Church, the sober historian should surely express himself from time to time with varying degrees of assurance.

If Prof. Gwatkin does not do this, it is not simply because his book may have grown out of lectures. A more deeply fundamental question as to the right of these volumes to be properly entitled history is involved in the whole dogmatic spirit in which their author conceives of his subject. A Christian historian indeed, whether writing of the days of Athanasius and Basil or of the earlier death-struggle with the Pagan world, cannot be expected to write as though the issue was to him a matter of indifference. But Prof. Gwatkin, here as in other work of his, does much more than this. His devoted loyalty to the Founder of our religion makes it for him a paramount duty to mark each deviation, as he counts it, from the Master's teaching. Theologically it may be 'an open question whether the Lord ever recognised Matthias in the place of Judas' (i. 65); but it can hardly concern the historian at all. 'The plain teaching of Scripture' (ii. 276) is a matter in one respect for the theologian, in another for the exegete. How the early Christians interpreted Scripture, and why they interpreted it as they did, are proper subjects for the historian; to go further than this may be justifiable on occasion, but to do so systematically is to write a theological pamphlet in two volumes rather than a history.

It is all the more curious then that a writer who introduces into the history of the second and third Christian centuries so much of his own interpretation of the Christian Scriptures, should neglect their evidence exactly at the point where to the historian it is indispensable. It would be incredible, if it were not true, that neither Prof. Gwatkin nor Dr Bigg has really made any serious attempt to include the history of the Apostolic Age as part of the history of the early Church. Of the two, Dr Bigg is the worse offender, seeing that, apart from four pages on the 'Foundation of the Roman Church,' the

'Origins of Christianity' commence with the persecution of Nero. But there is not much to choose between them, for, though Prof. Gwatkin has one chapter labelled 'The Apostolic Age,' the whole development of the period between the Crucifixion and the Neronian persecution is, apart from the problem of organisation, confined within ten pages (i. 54-64). Whether the true reason for the curt treatment of these crucial years lies in some unexpressed conviction of a difference in kind between history based on the New Testament writings and history based on other books, or perhaps rather in a tradition of the Theological Faculty allotting the one class of documents to the sphere of Exegesis and the other to the sphere of Church History, the result is in any case deplorable. It is impossible to isolate the apostolic from the sub-apostolic Church, and to understand them apart. There is no break between the one and the other.

We do not know whether a systematic attempt to begin the history from the beginning, and to follow down from its sources in the New Testament writings the current of thought in the early Church upon sacraments and asceticism and allegory, would have modified Prof. Gwatkin's hostile attitude on these matters. That the writer of the Fourth Gospel held sacramental views, and that the writer of the First Epistle to the Corinthians found a place in his ethics for asceticism and in his exegesis for allegory, are surely at least tenable theses. But be the Professor justified in his strictures or no, there is at least a want of proportion in his manner of making them, for he expatiates in these directions so often and so harshly that his sense of the shortcomings of the early Church comes to seem more acute than we suspect is the case.

Nor can Dr Bigg be quite acquitted of an occasional tendency to be on the pounce for evidences of nascent sacerdotalism. His account of Origen is, as we should expect, full of value; it is discriminating, sympathetic; illuminating, until the moment comes when his favourite theologian can be pressed into the service of anti-sacerdotal thought. Then we learn of his 'definite antagonism to the growing sacerdotalism of the age'; 'allegorism appears as what we call Protestantism, and

aims at securing at any rate the intelligent believer from sacerdotal control which was already becoming onerous . . . it was in this aspect that Origen was so dear to the fathers of the English Reformation'; and again, 'in the same allegorical manner he treats the words altar, sacrifice' (pp. 435, 436). Whatever residuum of truth there may be in this sort of valuation of older modes of thought in terms of modern controversies, is not the result a grave misrepresentation of the sum total of the facts? We learn much from M. Paul Sabatier's study of St Francis of Assisi, but we resent the attempt to represent the saint as a Protestant; and Origen is no less definitely Catholic, in the sense of a whole-hearted allegiance to the Universal Society, than St Francis. It is doubtless true that Origen depreciated the literal and the material, wherever found, as a veil that concealed the true world of the Spirit; but he does not apply this principle one whit more thoroughly in the direction of depreciating the external aspect of sacraments and ordinances than in slighting the plain literal meaning of the Scriptures or obscuring the real humanity of the Saviour. Our recognition of the great and incalculable services rendered by Origen to Christian theology is not really helped but hindered when they are estimated by the alien preoccupations of the sixteenth century.

Neither of these two English histories, then, provides us with the ideal history of the early Christian Church of which we stand sorely in need. To what extent is material easily accessible elsewhere which may serve to fill the gaps in our home production?

The *entente cordiale* between ourselves and our neighbours across the Channel would be robbed of half its promise of durability, if it rested on no more than a political basis. There is, in fact, to the average Englishman a flavour of intimacy in his relation with French literature and history which does not extend to other countries. Nor, in spite of confessional differences, has this mutual interest quite stopped short of religion, while between the Church of England and the Church of France there have been indications, since the days of Courayer and Archbishop Wake, of a certain reciprocal

friendliness, and that not only among the moderate or Gallican section of French Catholics.

One obvious source and ground of this sympathy has lain in the long tradition of a common productive study of early Church history. In this field German work can hardly be said to have attained serious dimensions before the rise, contemporaneous with the Oxford Movement, of the school of Tübingen. Italian ecclesiastical scholarship achieved a sudden brilliance in the circle of Veronese savants, Maffei, Bianchini, Vallarsi, the Ballerini brothers, towards the middle of the 18th century. But it was France and England that divided the inheritance of Erasmus, the one great patristic scholar of the Reformation: the appeal to antiquity was made by 17th-century Anglicans and 17th-century Gallicans on the same lines and in the same spirit. Savile and Ussher and Pearson among ourselves, in France Sirmond and Richard Simon, Baluze and Tillemont and the illustrious succession of Benedictines of St Maur, laid deep the foundations on which we are still building to-day. Nor did the great tradition come quite to a sudden end with the close of the Stuart age and the death of Louis XIV. Sabatier's vast patristic collection, 'the Bible in the early Latin Fathers,' appeared in 1741, Mangey's edition of 'Philo Judæus' in 1742; Bentley's long career of service to learning ended in the same year.

It is true that the last half of the 18th century witnessed, in this as in other fields, a drying up of the springs of life; a dully conventional world needed to be born again through the throes of the French Revolution and the Napoleonic era. Just as with us a strong movement of revolt from a 'liberalism' which the subjective and unlearned religion of the day was judged ill qualified to meet, and of recall to the example and principles of the primitive Church, gathered force in the University of Oxford, so in France the reaction against the Revolutionary spirit evoked a regenerated Catholicism which in some at least of its forms showed vitality enough to shed its reactionary element and to thrive without it. In France, as in England, the religious movement went hand in hand with a revival of historical study on new and critical lines. The *École des Chartes* of Paris, founded

in 1821 and still after nearly a century unique in Europe, if its primary object was to promote the scientific treatment of French records, has contributed much, especially through the writings of its distinguished alumnus, Léopold Delisle, to our better knowledge of the documents of Christian antiquity. Similarly the more modern French School at Rome has had no more eminent representative than Louis Duchesne. And not less remarkable than the work of these two great French Catholic scholars is the work which is being done, in the French language if not all by Frenchmen born, within the two great religious orders of St Benedict and of Jesus.

Of all literary undertakings which the European world has known, the 'Acta Sanctorum' must certainly have had the longest continuous history. The first volume was published by Bolland in 1643—indeed the impulse may be traced a generation further back to the issue of Rosweyde's 'Vitæ Patrum' in 1614—and the little congregation of Flemish Jesuits who continue his work and are known after him as the Bollandists have only advanced in the volume last published (1910) as far as the saints of the earlier days of November. Hagiography had earned an ill notoriety as a department of history, but within the last fifty years so complete a revolution has been effected in the principles and methods of the Acta Sanctorum, that an ordinary historian, paradoxical as it may sound, is likely to prove a more lenient judge of the historical value of hagiographical material than the Bollandist Fathers. The keynote of the new development was struck by Pères de Buck and de Smedt, and the quarterly publication of the 'Analecta Bollandiana,' begun in 1882, carries out in detail the business of amplification and rectification. When one reflects on the gigantic nature of their task and on the paucity of their numbers—they are seldom more than four or five, and they have recently lost Père C. de Smedt and Père A. Poncelet—the net result can only be pronounced astonishing. To the credit of Père Hippolyte Delehaye alone we have to reckon a whole series of illuminating monographs within the last ten years, 'Les légendes hagiographiques' (1905), 'Les légendes grecques des saints militaires' (1909), 'Sanctus' (1909), 'Les saints de Thrace

et de Mésie' (1912), and, most important of all, 'Les origines du culte des Martyrs' (1912).

From the days of Petau and Papebroch in the seventeenth century there has been an element of the audacious and unexpected in the scholarship of the Jesuits which finds an appropriate foil in the solidity and sobriety of Benedictine work. The present congregation of Solesmes reinforce the tradition of learning inherited from Cardinal Pitra with the critical sagacity of the older Benedictine scholars. While most Englishmen would probably judge that the Waldeck-Rousseau law against associations was in large measure justified as an act of political self-defence on the part of the State, one cannot but regret that so purely religious an order as the Benedictines should have suffered under it, and hope that in their new home on English soil the monks of Solesmes will find the unhampered security in which great literary undertakings thrive. Nothing else, either in German or in English, at all fills the place of their elaborate 'Dictionnaire d'archéologie chrétienne' (32 parts so far published, 1903-1914, A-Constantine), which is planned on the scale of an encyclopædia and yet staffed in the main by a mere handful of contributors, Dom Cabrol, Dom Leclercq and Dom Wilmart.

Less definitely French—indeed it belongs to the German congregation of Beuron—is the abbey of Maredsous in the Belgian province of Namur; but the Maredsous organ, the 'Revue Bénédictine,' is not only conducted entirely in French, but its most eminent contributor, Dom Morin, is a native of France, and indeed of the most English province of France, Normandy. Morin is undoubtedly the greatest living authority on Latin patristic literature. He is understood to have been for many years engaged in preparing a definitive edition of the writings of his countryman, Cæsarius of Arles; in his 'Anecdota Maredsolana' he has added notable material, exegetical and homiletic, to the literary remains of St Jerome, besides recovering an early Latin version of the epistle of St Clement of Rome. His minor contributions to patristic study, such as the vindication of the *Te Deum* for the almost forgotten writer Niceta of Remesiana, are well-nigh beyond count; his recently published 'Études, Textes, Découvertes' (tome 1, 1913) is

an astonishing although unfinished survey of the work accomplished in this sphere by an individual scholar still in middle life.

Mention may also be fitly made of another great undertaking, entrusted by Pope Pius X to the Benedictine Order, namely, the preparation of a critical edition of the Vulgate Bible; since, though the president of the Commission is Cardinal Gasquet (a 'Report of work done' also lies before us in English), the systematic collection of material is mainly in the hands of two younger monks, both of them French-speaking, Dom Quentin of Solesmes and Dom de Bruyne of Maredsous. Dom de Bruyne emulates in his '*Voyages Littéraires*' the example of illustrious predecessors in his Order, and brings to his business a ripe scholarship which has already been fruitful of result; Dom Quentin is in charge of a photographic apparatus constructed specially for the Commission, and probably no such elaborate machine has ever been in use in even our largest libraries. To produce a complete photographic representation of all the leading MSS of the Latin Bible is the aim in view; and, considering the bulk of the task, it may be said to mark a new departure in the application of photography to the purposes of critical work. The photographs are bound in volumes, collated first with the MS. itself (in order to see if anywhere the evidence of the MS. is clearer than the evidence of the photograph) and then with the printed text, and afterwards stored for reference at the headquarters of the Commission, the monastery of Sant' Anselmo on the Aventine.

All this constitutes a splendid record of work by French scholars, done and doing in the sphere of Christian antiquity. And yet it would, of course, be true to say that all or nearly all lines of study of which we have spoken belong to the preparatory department of history. It is material, and first-class material, for history, but is it history itself? Whatever we may think of the historical positions adopted either by the Oxford Movement or by the school of Tübingen, this merit at least belonged to both, that they did try to connect and fit their historical data into the construction of a coherent theory: the whole was never lost sight of in the parts. Before we can speak of French Catholic

scholarship as having succeeded in building up a great historical school, is it enough for it to have established, with whatever zeal and success, the isolated facts? Ought not these facts to be grouped and interpreted, set in vital relation to one another, summed up as parts of a single whole?

The criticism, ten years ago, might have been just its edge was turned on the day when Mgr Duchesne put before the world the first volume of his '*Histoire ancienne de l'Église.*' Nevertheless, it cannot be denied that the atmosphere of the Roman communion does at times exercise a blighting effect on the higher branches of historical investigation; and before the close of this paper we shall find that the experiences of Mgr Duchesne give legitimate reason for the preference of Roman Catholic scholars for the humbler spade-work of textual, literary, and archæological research.

A Breton by birth, of the little town of Saint-Servan in the diocese of Saint-Brieuc, the abbé Louis Duchesne first came into note, in the years that followed the Franco-German War, as the most brilliant pupil of the then recently founded *École Française* at Rome. There he became the disciple of de Rossi, and ultimately his colleague in an edition of the Hieronymian Martyrology for the '*Acta Sanctorum*'; there too he laid the foundations of the deep acquaintance with the materials, archæological and documentary, for the better knowledge of early Christian Rome, which went to produce his monumental edition of the '*Liber Pontificalis.*' About the same time as the publication of his '*Étude*' on that book, and after an expedition of research to Greece and Asia Minor, he joined the teaching staff of the new Catholic University at Paris in 1877 as Professor of History. Five years later appeared the lithographed edition of his course of lectures under the title of '*Les origines chrétiennes.*' There never was any doubt, from the first, of the severely critical character of Duchesne's work; and though de Rossi had familiarised the Roman world with the advantages of a scientific archæology, it was still some way from recognising the necessity of a scientific study of history. One cardinal of Curia communicated from Rome the 'remarks of three theologians

and canonists' on the 'Étude': another took alarm at the treatment of the history of dogma in the 'Origines,' and added that the particular views of Newman—also at that time a cardinal—were not of a character to be followed, still less to be adopted in the teaching chair. In France the sensitiveness of orthodoxy was particularly noticeable on the subject of local traditions about apostolic or primitive founders. With us the Reformation has made so complete a breach in the continuity of such traditions, that there is no one to feel personally concerned over the genuineness, for instance, of St Joseph of Arimathea's visit to Glastonbury. But when Duchesne, in the 'Bulletin Critique' for March 15, 1885, poured ridicule on the claim of the Church of Sens to have been founded by two of the Seventy disciples, Savinian and Potentian, the then archbishop of that see was hotly desirous of delating him to Rome. Criticisms of the Professor's soundness were on two occasions met by the grant of a year's dispensation from the duties of the chair; and Duchesne profited by the compulsory leisure to complete his edition of the 'Liber Pontificalis,' the preface to the first volume of which (1886) contained an expression of thanks to the ecclesiastical authorities 'qui m'ont accordé, pour ce travail, bien des facilités, et notamment le loisir relatif sans lequel je n'aurais pu le conduire au point où il est arrivé.'

This great work, completed in 1892, at once established Duchesne's reputation on an inexpugnable basis. The Rector of the University, Mgr d'Hulst,* though he had supported Duchesne loyally throughout, had at the outset exercised the privilege of looking over his writings in proof before publication; but, as he wrote in 1892, 'aujourd'hui il est un trop gros personnage.' Most of the French bishops were now friendly; Cardinal Richard, Archbishop of Paris, made Duchesne an honorary canon of Notre-Dame. Leo XIII, himself a man of scholarly tastes and of genuine appreciation of learning, was sensible that danger lay as well in blind antagonism

* 'Vie de Mgr d'Hulst,' tome 1 (1912), par Mgr Baudrillart, recteur de l'Institut catholique de Paris. Attention was called to this interesting biography in an article by Mgr Batiffol in the 'Constructive Quarterly' for June, 1913; and we have drawn on it for many details.

to the critical movement as in unqualified adhesion to it. Perhaps too the movement was going ahead so fast as to leave Duchesne rather in the lurch; what after all, it might be said, were the malicious touches which Duchesne could throw into his portrait of this or that saint and doctor of the Church, compared with the open hostility of the younger critics to the whole body of traditional teaching about the Bible and even about the Gospels?

Anyhow when, in 1895, the Government of the Republic nominated Duchesne to the headship of the *École Française*, there was nothing lacking either in the warmth of the regret that accompanied him from Paris or in the warmth of the welcome that awaited him in Rome. Here in the atmosphere most illuminating to the historian of Christianity, where the Church of primitive times confronts the Church of to-day for comparison or contrast, and the catacombs jostle St Peter's, Duchesne's talents found congenial room, and assuredly they were not hid in a napkin. Secure in the enjoyment of a distinguished and independent position, and exempt as a foreigner from all relation to the problem of temporal allegiance which divided Roman society, he was an accepted guest in 'white' and 'black' circles alike; while in Cardinal Mathieu, who came from Toulouse to represent in the Sacred College the French element, he had a fellow-countryman for companion and friend at court. Probably he had never felt more than a tepid satisfaction in the 'lower criticism,' in the drudgery of texts and collations and recensions;* at any rate he was by this time devoting himself more and more to historical study proper. He had served his apprenticeship in material and method; the master-craftsman must now elaborate his creative work.

The '*Origines du culte chrétien*,' the first book of Duchesne's that became familiarly known in England, had appeared in 1888; and, if it is only a sketch, it is at the same time the most successful attempt yet made to popularise the results of the liturgical researches which

* 'Les documents du texte ainsi établi sont produits au bas des pages, dans l'énorme appareil de variantes que j'ai cru devoir publier. On trouvera qu'il y en a trop, et l'on sera de mon avis.'

are a marked feature of modern ecclesiastical scholarship. Less known here, the '*Fastes épiscopaux de l'ancienne Gaule*' (1894, 1899) ruffled violently the susceptibilities of devout Catholics, both cultured and ignorant, across the Channel, because in these volumes the author took up and developed in rigorous fashion, and on a comprehensive plan for the whole of France, the view he had earlier expressed about the antiquity of the Church of Sens and its neighbours. With Savinian and Potentian went overboard the other 'apostolic' founders, St Martial of Limoges, St Front of Périgueux, St Ursin of Bourges, and, most famous of all, Lazarus, Mary Magdalene, and Martha of the churches of Provence. The cause of historical truth needed the demonstration; but—though Rome was not to be drawn into any guarantee of these patriotic legends—the resentment in France was neither slight nor ephemeral, even in quarters where we should hardly have looked for it.

The French Academy, a stronghold of the Orleanist opposition under Napoleon III and of the conservative opposition under the Third Republic, has habitually found place among its forty Immortals for a representative of the clergy. Cardinal Perraud of Autun was followed by Cardinal Mathieu; at Mathieu's death Duchesne's eminence as a scholar and writer marked him out for the succession. But the inheritance was not easily won; his candidature was distasteful to the reactionary element in the Academy; and it was only after a prolonged adjournment, and then only by the barest majority, that he secured his chair. At his formal reception, early in 1911, he made the customary *éloge* of his predecessor—a charming portraiture of friend by friend—and was welcomed in turn by M. Étienne Lamy. The welcome was a brilliant exposition, '*empreint d'une ironie discrète que l'on a goûtée*,' of the critical temper in a historian and of its drawbacks—especially of its drawbacks. We seem to catch the note of an old and deep-seated dislike of culture for learning in the skilful pleading which M. Lamy puts into the mouth of the grasshoppers of the affronted Midi. They are supposed to remonstrate with the new Academician for the brutal havoc he has wrought upon their past:

'Maître, et vous tous, épigraphistes ou paléographes, qui demandez aux signes laissés par les morts sur la pierre ou le parchemin la preuve de la certitude, vous avez fondé le règne du document, ne préparez pas sa tyrannie. Nous ne possédons ni écriture, ni archives, et, néanmoins, nous sommes sûres que, depuis l'ère de la première cigale, notre chant n'a pas changé. Ne daterait-il que de l'heure où quelque scribe, réveillé par lui, le nota? La multitude humaine, illettrée comme nous, a aussi des chants très anciens, qu'elle se transmet, ses traditions et ses légendes. Vous leur demandez de faire leurs preuves, comme si leur existence n'était pas quelque chose. Rien ne naît de rien, et la tradition porte témoignage en faveur des faits qu'elle suppose. Sans doute, il arrive qu'elle les déforme; c'est pourquoi il est nécessaire de la contrôler et c'est à quoi servent les documents. Le passé a deux témoignages: la tradition et l'écriture. La tradition est la voix des peuples: dans les siècles d'ignorance, elle est la seule mémoire; . . . si elle peut se tromper, elle ne veut jamais tromper. L'écriture est la déposition de témoins isolés qui passent, si nombreux que soient les textes, la voix intermittente d'une minorité; et cette minorité, plus que la multitude, est capable de calculs et de mauvaise foi. Il n'est donc pas contraire à la bonne méthode de contrôler aussi les documents par les traditions. Ne l'auriez-vous pas un peu oublié dans vos doctes rigueurs? . . . Pour des cigales, ce n'est pas trop déraisonner.'

But we have been inverting the chronological order of our story; for, before the events of which we have just spoken, the three volumes of the 'Histoire ancienne de l'Eglise' had appeared.

Comparison with the histories of Bigg and Gwatkin is rendered difficult, and perhaps rather unfair to the English writers, by the larger scope of Duchesne's work. Planned to cover the first six centuries, down to the death of Gregory the Great, it extends so far to the end of the fifth century; and it is only in the second and third of the three volumes, corresponding respectively to the fourth and the fifth centuries, that Duchesne really gets into his stride. His special gifts as a historian come into freer play as the material becomes more comprehensive and more complex. One cannot decide whether to admire most his vast learning, or the sureness of selection which picks out the one necessary fact among twenty, or the illuminating summaries which give the

key to a whole situation,* or the impartial justice with which he exercises the historian's supreme right of judgment and the witty epigrams in which the judgment is delivered. These are qualities for which the history of the first three Christian centuries offers less opportunity. There we have to face not a superfluity of material, but a lack of it; and Duchesne betrays a certain impatience of the situation. He has a fine scorn for research into origins; the historian, we seem to hear him say, has so much to master, he has so large a field open to his energies, that he has neither time nor justification for reconstructing any scene of which the evidence affords only partial glimpses. 'Les gens experts et sensés' (he writes in his preface) 'verront bien . . . pourquoi je ne me suis pas trop attardé aux toutes premières origines.' In this policy of exclusion Duchesne would find an ally, as we have seen, in Gwatkin—'our knowledge of the apostolic age is in the highest degree scanty and imperfect'; they would part company when Duchesne goes on to eschew a second line of enquiry. If with the one writer the historian merges in the theologian, the other is led alike by the bent of his mind and the circumstances of his position to emphasise, or over-emphasise, the distinction between them; 'sans négliger les théologiens et leur activité, je ne me suis pas absorbé dans la contemplation de leurs querelles.'

It was never doubtful for a moment that in Duchesne's work Christian and Catholic scholarship had demonstrated that it could more than hold its own against all rivals; no recent history of the early Church in English, French, or German could with justice be placed in comparison with his. And the note of criticism was at first hardly audible amid the general chorus of applause. But at the time when the two earlier volumes were published, the reaction which followed the death of Leo XIII had not yet gathered its full strength; nor in candour must it be forgotten that the first volume, if or because it is less brilliant than the other two, contains also less that was calculated to offend. For the fourth and fifth centuries the comparative abundance of our

* As an instance may be cited the passage on the relation of Monophysitism to Christian devotion, iii. 492.

knowledge of the personality of the actors and of the motives of their actions * gave Duchesne an opportunity of which he was not slow to take advantage. His later volumes perhaps acquire the qualities which arrest the student and fascinate the general reader exactly from their freer treatment of well-known names and great causes. Some of these names, he writes in the preface to the third volume, call for the exercise of a good deal of indulgence :

'Il est tel saint de ce temps-là qui n'aurait peut-être pas passé sans difficulté par les procédures actuelles de la canonisation. Cela ne nous regarde pas. Il doit seulement être bien entendu que les situations hagiographiques acceptées par nous, sans inventaire, telles que les siècles nous les ont transmises, ne sauraient peser sur les jugements de l'historien.'

The combination, in these volumes, of a profound deference to the Roman Church, whether in its 'procedure of canonisation' or otherwise, with an almost brusque assertion of the historian's right to pass judgment, unbiassed by theological prepossession, on the men and the matters that come under his review, cannot be more skilfully brought out than in the epigrammatic, if unkindly, language of M. Lamy :

'La nouveauté originale de cet immense labeur pourrait être définie : la collaboration d'une âme religieuse et d'une intelligence sceptique. Le Breton et le Normand, d'accord, ont marqué dans votre œuvre la part de la soumission et celle de la liberté. L'un accorde largement à l'autorité doctrinale tout le nécessaire. L'autre craint les prodigalités et ne concède rien de superflu. À celui-ci, n'échappe point que l'histoire religieuse est exposée à un risque particulier d'inexactitude.'

'Le soin de votre renommée scientifique vous a-t-il induit parfois à un peu d'ostentation dans votre réserve religieuse ? Votre impartialité a-t-elle pris jusqu'au superflu le ton du détachement et l'air de l'indifférence ? Certains le pensent. Mais le droit d'attaquer par les détails une œuvre comme la vôtre ne va pas sans le devoir d'en juger l'ensemble. Or, les moins édifiés par telle de vos pages, s'ils concluent sur toutes,

* Down to the council of Nicæa we have no collections of letters preserved to us except those of St Paul, St Ignatius, and St Cyprian. For the hundred and fifty years after Nicæa we have collections galere : hardly any of the great fathers is unrepresented in this form of literature.

ne peuvent contredire que, vides de piété, elles soient pleines de catholicisme. Tous vos chemins mènent à Rome. . . . Et chacune de vos pages dit en silence le mot par lequel vous terminez votre *Histoire* en parlant d'un pape qui n'avait pas hésité devant son devoir : "Dieu lui donna raison." * *

'Ils reprochent à votre histoire qu'elle leur cache Dieu. L'action des hommes, en effet, y apparaît seule. À vos récits manque quelque chose : le nimbe que les vieux maîtres mettaient au front des élus. Vous ne gravissez pas le Thabor où la transfiguration s'accomplit, vous attendez, à la descente de la montagne, ceux dont le visage est redevenu humain.'

In the criticisms reported or expressed by M. Lamy there is something that is just as well as something that is unjust. Nothing could less serve the real interests of Christianity and the Church than history written on principles of 'edification'; and Mgr Duchesne deserves the gratitude of all serious Christians for resolutely refusing to admit this debasement of the historian's office. In this sense, which is not quite M. Lamy's, we can truly say 'Vous avez servi l'Église.' But on the other hand even a friendly reader cannot help noticing a number of isolated incidents, phrases dropped here and there—now an unexpected shaft aimed with precision at some established reputation, now a lightning-like rapier-thrust pricking some comfortable doctrine—which, when brought together and construed in a critical spirit, might plausibly be interpreted as evidence of anti-ecclesiastical bias. Sometimes the blows are serious enough; sometimes they seem to be delivered at random, with *malice* if not with malice, in pure lightness of heart and joy of battle.

'Admettre que Jésus-Christ et l'Esprit-Saint sont Dieu . . . ceci, c'est la Trinité chrétienne,' as ordinary religious Christians believed it in the first century, and believe it in the twentieth : 'les théologiens en savent, ou du moins en disent, notablement plus long. Mais il s'agit ici de religion et non d'école' (i, 43). The good sense of Diocletian for long held him aloof from any attempt at persecution : 'il est possible que, comme tant d'autres réformateurs, il ait été séduit par la chimère de l'unité religieuse, chimère néfaste et robuste, qui n'a pas fini

* The reference is to Pope Felix III, and his breach with Acacius of Constantinople over the monophysite controversy : Duchesne, III. 682.

de faire des victimes' (ii, 9). We should hesitate to believe in the horrors of the last persecution, if it were not for the authority of Eusebius, a contemporary and an honest narrator: 'il faut donc le croire. Et d'ailleurs, des histoires moins anciennes et aussi bien attestées ne sont-elles pas là pour nous apprendre qu'en ce genre de choses tout, tout est possible?' (ii, 51).

Cæcilian, elected bishop of Carthage (he had been archdeacon) just after the close of the persecution, was opposed by all the elements which went to make up the Donatist movement:

'l'adversaire le plus redoutable était Lucilla, grande dame fort dévote, riche, influente, d'un naturel batailleur, depuis longtemps en querelle avec l'archidiacre, qui, dès avant la persécution, l'avait contrariée dans ses pratiques de dévotion. Elle saisit l'occasion de lui faire pièce. On sait ce dont sont capables de telles personnes' (ii, 106).

In such passages it is probable enough that the recent history of the Church, and especially of the French Church, was not absent from the writer's range of vision: in the fourth century, as in the twentieth, moderate-minded and cautious bishops, like Mensurius and Cæcilian at Carthage or Basil at Cæsarea or Chrysostom at Constantinople, suffer at the hands of the 'intransigent' party (ii, 21, 420; iii, 85). Epiphanius died on his return from sharing in the attack on St John Chrysostom; 'je ne sais s'il se repentit; les personnes de sa trempe ne se repentent guère.' Saints aspersed the orthodoxy of saints—the famous watchword 'quod semper quod ubique quod ab omnibus' was directed by St Vincent against St Augustine; and Jerome rendered into Latin the vilest abuse of Chrysostom (iii, 105, 283). The soundness of a saint and the heresy of a heretic may both be doubtful; the personal orthodoxy of Nestorius is at least as probable as the personal orthodoxy of St Cyril (iii, 449-451).

Here, then, we have what is on the one hand a History, written in a style where no word is misplaced and every word tells,* lucid with a lucidity that is characteristically French, and at the same time marked deeply with a

* It has been well said of him, 'He throws an immense amount of light on the people and events by the turn of a phrase, or (as it were) by a wink and a shrug!'

massive erudition for which we are more accustomed to look across the Rhine; while that nothing might be lacking to its success, approval had been asked for and obtained from the highest quarter in Rome. What is, on the other hand, apparent is that, while it is even rigidly Roman in its sympathies and tendencies—at least that is the view which Protestant opinion will take of it—it is as far removed as can be imagined in tone and temper, in method and equipment, from the ordinary type of ecclesiastical manual; indeed it may be thought to show some symptoms of exaggerated reaction from this type in its deference to modern ‘critical’ authorities* and in its general estimate of the age of the Fathers. The Christian theologian has in Duchesne been so far suppressed by the impartial historian that we miss sometimes, where it might seem to have had legitimate place, the overflow on to the printed page of enthusiasm over the triumph of the Church and over its great work in the amelioration of life and the salvation of society. Our author sees with so clear a vision the imperfections of the human instruments, the pitiful waste of energy in theological rivalries, that the preface to the third volume can only ring the changes on the phrase ‘triste siècle.’

Alike for its great qualities and for ‘the defects of its qualities,’ it could not but happen that the ‘*Histoire ancienne de l’Église*’ should create a splash which would stir up a good deal of mud before the water cleared again. Just because it was epoch-making and of more than merely national importance, it was bound to be translated into other languages for the benefit of those who could not savour the grace and piquancy of the original. Of an English translation two volumes, corresponding to the two first volumes of the original, have appeared, and may be recommended as giving a good general reproduction of it.† More pregnant with result was the Italian version, made by a professor of the

* There is scarcely any use made, so far as we have noticed, of English work.

† Exception must occasionally be taken to the rendering of technical terms. Thus ‘Azymes’ and ‘Pasch’ (i, 207, 208) are, to ears unfamiliar with the Latin Vulgate or service-books, simply gibberish: why Nisan rather than Nisan (*ib.*)? So, too, *martyria* is treated as a singular (p. 183, n. 3). And when Duchesne wrote that Palmas was ‘doyen’ of the bishops of Pontus, he did not mean ‘dean’ in the English sense.

College of the Propaganda, revised by the author in every point to which exception was taken by the censor, and finally approved with the *imprimatur* of Padre Lepidi, the learned friar who holds the traditionally Dominican office of 'Master of the Sacred Palace' and, as such, acts as theological press-reader to the Vatican. Knowledge of the French language not being universal in dominant circles in Rome, the book became now for the first time accessible to some of those to whom it was least likely to be acceptable, while the successful prosecution of the campaign against Modernism seemed to make measures possible that had not been possible a few years before. If at the present moment the trumpet gives out in the Church of England a too uncertain sound, in the Roman Church it is braying hoarsely on a single sustained note. Although Modernism in Italy seems more of a social and less of a theological movement than elsewhere, yet the action of the Curia is more immediately effective in Italy; and the power behind the Curia went vigorously to work. That there was nothing to show that Duchesne was a Modernist in the theological sense, or indeed in any sense but that in which all intelligent men may be called Modernist, mattered not at all.

A Jesuit Father named Bottagisio opened fire with a series of articles in an ultramontane journal at Florence. Personages eminent at least in the technical sense congratulated him on the act of filial piety by which as a dutiful son of the Church he had hastened to the rescue of a Mother insulted and ill-treated. Thus encouraged, Bottagisio republished his articles in book-form and dedicated the book to the Pope. One Congregation of the Roman Curia forbade the reading of Duchesne's work in the Italian seminaries; another Congregation followed suit with a similar prohibition for the Italian religious houses. Mgr Duchesne answered by addressing privately a letter to the Roman Catholic episcopate throughout the world, in which he pleaded the sanction given to the 'History' alike by the Pope and the Pope's officials. In vain: the 'History' has been placed on the Index, Duchesne has given up the unequal contest, and has withdrawn from Rome.

It is a sorry spectacle. We have tried above to show what excuses may be found for criticism of the

book, and what handles its author has supplied to his adversaries. But of what history worth writing—at any rate of what history worth reading—would it not be possible to construct by careful selection and isolation from context a *catena* of things which one would rather have had expressed otherwise? Judges either generous or wise would have overlooked whatever blemishes there may be, in consideration of the unequalled and in the strictest sense immeasurable services which this illustrious writer has rendered in the ‘*Histoire ancienne de l’Église*.’ It is something to have made Church history at once so intelligible and so interesting—not necessarily less divine, because very much more human; one would wager that no generation of Italian seminarists ever studied the subject with so much zest as the single generation which was allowed access to the ‘*History*’ of Duchesne. It is something to have produced a work which appeals alike to the ordinary reader and to the student, and which earns the respect of adversaries without forfeiting, if a broad view be taken of it, the just confidence of friends. True, severe things are said from time to time of some to whom all ages of the Church have accorded ungrudgingly the name of Saint, but it does not follow that they are unjust things; the treasure, after all, is in earthen vessels. Nevertheless Duchesne rightly recognises that it was not without cause that St Jerome or St Cyril received the august title from posterity (iii, p. viii). Jerome not only vindicated for all ages of the Western Church the claims of learning, but was ‘loved and venerated by saintly people who knew him intimately during life.’ Cyril, a passionate party leader if ever there was one, made at the moment of his triumph a loyal sacrifice to the cause of Christian unity which both in its momentary effect and for its permanent example has rarely been surpassed. And if Duchesne the scientific historian knows when and how to judge, he knows also that moments come when judgment must lose itself in admiration and reverence. Two saints of the fifth century exercise over him this magic sway: Saint Augustine, the Christian teacher, and Saint Leo, the Christian statesman.

C. H. TURNER.

Art. 2.—MODERN FORCES IN GERMAN LITERATURE.

1. *Dichtung und Dichter der Zeit*. By Albert Soergel. Leipzig : Voigtländer, 1911.
2. *Die deutsche Literatur des neunzehnten Jahrhunderts*. By Richard M. Meyer. Berlin : Bondi, 1905 ; Volksausgabe, 1912.
3. *Literatur in Deutschland*. By Kurt Martens. Berlin : Fleischel, 1910.
4. *Führer durch die deutsche Literatur des zwanzigsten Jahrhunderts*. By Max Geissler. Weimar : Duncker, 1913.
5. *Masks and Minstrels of New Germany*. By Percival Pollard. London : Heinemann, 1911.

THE student of contemporary German literature is certainly at no loss for expert guidance and information. The contemplation of the German works named above gives rise to some comparisons by no means favourable to the enterprise of English publishers—or should we say to the energy of English men of letters? If a student wished for some introduction to the study of English poets and novelists of what we may call our own generation—beginning with the period of Tennyson and Browning, then the period of Rossetti, Morris and Swinburne, and finally the period of Stevenson, Hardy, H. G. Wells, Conrad, Yeats, Bernard Shaw, Galsworthy, Arnold Bennett—where would he find it? Certainly in no one work known to the present writer. But turn to Germany, and consider such a book as that which we have placed at the head of our list. Soergel's '*Dichtung und Dichter*' covers roughly the history of German literature from 1870 to the present day. It runs to 900 pages; it is full of illustrations taken mostly from the works of artists who have painted or sketched the writers dealt with, but including also covers or title-pages of first editions, caricatures, and artistic comment of every description. It gives a few biographical particulars, and an appreciation of each writer, of the tendencies he represents and of the influences which have shaped his literary career. And these appreciations are no perfunctory piece of book-making; they are critical studies, independent, thoughtful, and written with spirit and style—the notice o

Nietzsche, for example, is one of the best contributions we have met with to the study of that writer as a thinker and poet. R. M. Meyer's book is perhaps less original and entertaining than Soergel's, but it is an able and careful history of the development of German literature from the beginning of the 19th century onward. 'Literatur in Deutschland,' by a well-known novelist and dramatist, contains, in about 200 pages, references to some 300 contemporary names and a great deal of most acute and suggestive criticism. Finally, we have in Max Geissler's 'Führer' a kind of critical and bibliographical 'Who's Who,' relating almost entirely to living writers of imaginative literature. The criticisms are of course criticism in tabloid form, but they could hardly be better done; the book is in itself a remarkable piece of literature.

The appearance of such works as these—and it would not be difficult to name as many more of similar scope if not of equal merit—is certainly striking evidence of the serious interest taken by the German reading public in the literature of its own day and country. Our English writers of poetry and fiction are not less valuable, nor less valued than the Germans are by their own countrymen, but we seem content to enjoy them without any attempt at a comprehensive and philosophic estimate of the forces which have shaped them, or of those through which they are to-day shaping the life and thought of England.

A discussion of modern German literature obviously begins with 1870—the greatest recent political and spiritual watershed in the life of the nation. Nothing could be more natural than the expectation that, when a nation has been strung up to the achievement of great deeds, when its spirit has been freed and dilated and its sense of unity quickened by the consciousness of a common glory, we should see it seeking and finding the means of self-expression through a great literature—through literature more than through any other art, because it is, in its many forms, the most popular, the most comprehensive, the art in which the means of expression lie readiest to the eager hand. History to a great extent confirms this expectation. One thinks, for instance, of Athens after the Persian wars, of Elizabethan England,

of Germany after the Seven Years' War, of the American Civil War and Walt Whitman. But on two occasions in German history we are struck by the fact that victories in the material world have brought with them no victorious advance of the imagination into new territories of thought and beauty. One of these was after the wonderful popular uprising which ended the tyranny of Napoleon. That great national triumph was furthered quite as much by the poets and thinkers as by the statesmanship of Stein and the soldiership of Gneisenau and Blücher. But no sooner was the Frenchman driven from German soil than the German princes, with one accord, to escape being reminded of their broken pledges of reform, proceeded to put the German spirit into bonds; and any thinker or poet who had anything of real moment to say to his country was obliged to say it in exile. Under such conditions—and they prevailed more or less rigorously for some fifty years—a great creative literature capable of performing the functions of such literature, of fortifying, ennobling, illuminating, could not possibly arise. A literature of revolt and satire there was indeed—it was adorned by such names as those of Heine, Freiligrath and Herwegh—but not a literature fitted to nourish the expanding soul of Germany.

The second instance in our minds is that of the war of 1870, with its issue in the foundation of a united German Empire. Then indeed was the dream of ages realised, and in circumstances to which no invention could have added anything of splendour and dramatic impressiveness. The German spirit had at last been set free, in the sense at least in which Milton wrote 'Give me the liberty to know, to utter, to argue freely according to my conscience, above all liberties.' In the region of morals, of religion, of politics, a poet or publicist could, since 1870, and can now, speak his mind as freely in Germany as anywhere in the world. But although, as we shall see, the war of 1870 was by no means without effect on German literature, it is undeniably true that nothing happened in the spiritual history of Germany at all commensurate with the greatness of her achievement in war and statecraft.

In fact the first notable thing that happened after the triumph of 1870 was the *revanche* taken by the French

spirit in overrunning Germany with the doctrines of Naturalism as taught and practised by Zola and his group. A brilliant band of writers gathered round M. G. Conrad and his paper, 'Die Gesellschaft: Realistische Wochenschrift für Literatur, Kunst und öffentliches Leben.' They declared open war on the writers on whom the mind of young Germany was then feeding—Heyse, Dahn, Spielhagen—even on Fontane, even on Gottfried Keller. These writers, it was declared, were not originators, only continuators; at best 'tüchtige Ausarbeiter' of a material and a technique inherited from an age with which young Germany had little in common. But the attempts to naturalise Naturalism on German soil—let the reader glance at Hermann Conradi's brutal story, 'Adam Mensch'—had no lasting success. When Naturalism came to German literature after 1870 it came in quite a different guise; it came with Arno Holz and Schlaf, who repudiated the ideas of Zola, and with their disciple, Gerhart Hauptmann. What the 'Gesellschaft' group really did was rudely to shake German literature from its complacent contentment with a kind of poetry which had simply learned the technique of Weimar but had not one serious thought or sincere observation to record.

Yet the war and the stimulus which it gave to the spiritual life of the nation were by no means so negligible as is often supposed. One of the first results, however, has to be looked for outside the political limits of Germany. It is strictly true, as the old song has it, that the German Fatherland, in the spiritual sense of the word, is bounded only by the limits of the German language. A Swiss or a Viennese writing in German always thinks of himself and is thought of by others as contributing to German, not to Swiss or Austrian literature. And one of the first effects of the war of 1870 was to win for this spiritual Germany a very distinguished Swiss writer who at that time might just as easily have gravitated to the French side of the Alps. We have it in his own words that Conrad Ferdinand Meyer was moved by the events of that year to range himself definitely as a German poet. He felt that these events had given him a Germany to belong to. '1870 was for me the critical year,' he writes; 'it decided

a war in my soul.' His fine historical poem on Ulrich von Hutten, 'Die Traube,'

'Die heut gekeltert wird und morgen kreist
In Deutschlands Adern als ein Feuergeist,'

was the first-fruits of this new and ardent sense of nationality, which inspired also much of the lyrical poetry written after that date. Assuredly the acquisition of a poet of C. F. Meyer's genius was no small matter; it was a spiritual annexation well worthy to be set beside those territorial acquisitions which the German sword won but which Prussian administration has so signally failed to assimilate. Meyer, it is true, does not come before us with the air of a pioneer. He was of the school, so far as a true poet has any school, of Goethe and Schiller, the Dioscuri, the *Schützgeister*, to whom, as the guardian stars of his country's soul, he addressed one of his noblest poems. But his style is entirely individual, and its calmness and reticence mean no lack of sincerity and passion. Like a true German he was impassioned for Italy—Italy, 'where every reaper-girl looks like a Muse'; and one of his most beautiful lyrics is inspired by a Roman fountain:

'Aufsteigt der Strahl und fallend giesst
Er voll der Marmorschale Rund,
Die, sich verschleiernd, überfließt
In einer zweiten Schale Grund;
Die zweite giebt—sie wird zu reich—
Der dritten, wallend ihre Flut;
Und jede nimmt und giebt zugleich,
Und strömt und ruht.'

How delicately and profoundly in this lovely image is suggested the eternal give and take, the interchange of action and repose, in the life of the universe! It is a monumental yet vital thing, like the object which it describes. Meyer was an artist of the purest type, but he hated to be labelled with that title, and avowed views of his craft which those who rejoice in the label commonly repudiate with fervour. 'Je ne suis pas du tout un artiste,' and again, 'je n'écris que toutes les fois qu'un fait moral me frappe ou même m'a ébranlé.' The lines 'In Harmesnächten' are written out of a deep experience;

and we may ask if ever that experience, common yet profound, was expressed with a finer simplicity :

'Die Rechte streckt' ich schmerzlich oft
In Harmesnächten,
Und fühlt gedrückt sie unverhofft
Von einer Rechten—
Was Gott ist, wird in Ewigkeit
Kein Mensch ergründen,
Doch will er treu sich allezeit
Mit uns verbünden.'

Seeking for another contemporary name to put beside that of C. F. Meyer, we inevitably think of his countryman, Gottfried Keller, 'the most creative spirit,' it has been said, 'that has appeared in German literature since Goethe.' Meyer belonged to a well-to-do family of the old civic aristocracy of Zürich. Keller was the son of an artisan, brought up in desperate poverty and fighting his way slowly to recognition and reward. He has nothing of the classic quality of Meyer; his style is rich in metaphor and image, sometimes prolix, full of local colour, charged with quaint wisdom, loving to linger with epic particularity on the details of action. But in one thing they were both united; alike they repudiated the notion of a poet as living and working for an abstraction called 'art.'

'I hold it the duty of a poet,' wrote Keller to Auerbach in 1860, 'not only to make the past illustrious, but so to strengthen, so to ennoble the present and the germs of the future, that people may come to believe that even thus they themselves are, even thus do things really happen. Let a writer do this with a certain benevolent irony, so as to prevent the reader from being moved by any false pathos, and I believe that a people will, at last, visibly and outwardly, come to be that which it good-humouredly fancies itself, and which, in its inward dispositions, it really is already.'

Both Keller and Meyer were deeply stirred by the events of 1870; on Meyer, as we have seen, they wielded a decisive influence at a critical period in his life as a writer. But a more immediate product of that period was the great lyrical poet, Detlev von Liliencron, whose first work in verse, 'Adjutantenritte,' though it did not

appear until 1884, was, as its name implies, directly inspired by the war. Liliencron was an example of a type of artist which is not common nowadays—the artist who has lived the things he writes about. He was born in Kiel in 1844, and came of a noble family of Danish origin. His grandfather had transgressed the laws of his caste by wedding a peasant-girl, one of the serfs on his own estate; and the poet's father was on that account rendered incapable of inheriting the family property. Detlev therefore grew up in modest circumstances, but he contrived to enjoy to the full his master-passions of field-sports and of war. The latter he saw in Prussian service, both in the war with Austria and as an Uhlan officer in 1870. It was a time for him of high-strung passion and delight, and of something more as well. 'O my lieutenant days,' he cried afterwards, 'with your gay freshness, with your keenness, with all those splendid friends and comrades, with all your days of roses, with your sense of duty strung up to the sharpest, with your stern self-discipline!' Lieutenant days do not last for ever; and, when the war was over, he fell into an unhappy love affair, and then into debts which piled themselves ever higher above his head. He had to throw up his commission and thought of taking service in America, where his maternal grandfather, one of the intimate friends of Washington, had been a general. The mere sight of New York drove him back in despair, but he found fresh encouragement and joy in a new love followed by a happy marriage.

He now received a modest official appointment. He had thought deeply and read widely upon poetry and art. A religious tendency now came to the surface; he longed to feel himself a member of an organic religious body, and had a strong inclination to join the Catholic Church. But this mood passed and turned into a sombre pessimism, tempered indeed by his indomitable lust of life in which he remained a child to the end of his days, and consoled by the unfailing anodyne of toil. He filed, he polished, he weighed each word in his vivid lyrics and ballads; and the sight of his scored and interlined manuscript was, as a friend has reported, a rebuke to facile writers who think a happy phrase or two enough to carry off a poem. There was nothing he did not write

—dramas, stories, lyrics, and even a sort of fantastic epic, 'ein kunterbuntes Epos in zwölf Kantussen.' They had little success in his own day. The waves of debt rose higher and higher; he tried to cope with these by giving readings of his works—an experience which he described as a veritable torture. His last prose work is a kind of veiled autobiography, full of charm and of romance. It was offered in vain to seventy German periodicals. A book of poems, entitled 'Goodnight,' followed. He was now a broken man; and a pathetic consciousness of this drew him with his wife and child in 1909 to pay a visit to the battlefields about Metz, where he had played a worthy part in Germany's greatest hour. He died in the summer of the same year, 'without fear,' as Richard Dehmel said in his funeral address, 'of the eternal night, without hope of a resurrection day, but with a pure untroubled reverence for the unsearchable, inexhaustible Power through which we live and die.'

One cannot read Liliencron's verse—of which some racy translations will be found in Mr Pollard's vivacious book, 'Masks and Minstrels'—without being reminded of the 'fierce and tender strain' of Burns. Let us recall Mr William Watson's fine appreciation of the latter poet :

'He came when poets had forgot
How rich and strange the human lot;
How warm the tints of Life; how hot
Are Love and Hate;
And what makes Truth divine, and what
Makes Manhood great.

A ghostly troop, in pale amaze
They melted 'neath that living gaze—
His in whose spirit's gusty blaze
We seem to hear
The crackling of their phantom bays
Sapless and sere!

For, 'mid an age of dust and dearth,
Once more had bloomed immortal worth.
There, in the strong, splenetic North,
The Spring began.
A mighty mother had brought forth
A mighty man.'

It is Liliencron and his time to the life! And much in

this strain wrote Gustav Falke in his witty *Festlied* at a banquet given to Liliencron in 1904:

‘Liliencron, der edle Ritter,
Fegte wie ein Lenzgewitter
Durch die teutsche Literatur.
Onkel, Tante, tieferschrocken,
Zerrten zitternd alle Glocken:
Herr, schütz unsre fromme Flur!

Also brach der edle Ritter
Feurig wie ein Lenzgewitter
In die deutsche Lyrik ein.
Wie das blitzte, wie das krachte,
Wie das jauchzte, wie das lachte:
Kinder, nur nicht ängstlich sein!’

Prose and verse, all Liliencron's work has a grip, a vividness, a rich vocabulary, a reckless joy in the passing moment, a profound and manly tenderness in the face of sorrow and loss, which were very rare in German literature and made him the great originating and liberating force that he undoubtedly was. It was part of his power that he was—except in the matter of his art—so little of a thinker; never was German poet less. His many love-poems sing of casual, wayside amours almost in the Béranger strain: ‘Dans un grenier qu'on est bien à vingt ans!’ To sing in that strain with Liliencron's conviction, with his careless egotism, after the terrible showing-up of the ‘grenier’ and its presiding goddess in Zola's ‘Claude,’ argues a singular remoteness from the ethical and social questions that are weighing on the minds of men in the present day. As he says himself:

‘Ich habe mir die Stoffe gewählt
Die mir gefallen, ich schrieb vom Herzen
Jubel und Jauchzen, Leid und Schmerzen.’

Yet a single terrible line, ‘Das Leben, äh was, macht uns alle brutal,’ dropped casually, as it were, into one of his lyrics of light love, takes us far indeed from the Béranger mood and reveals for a moment the grim northern veracity, the heart-sickness and the gloom which dwelt immovably beneath the changing surface.

In his magnificent war-stories, in his tales of the mediæval fights and forays of his own forbears, the hard-featured, iron-fisted lords of the northern marches, he showed an unerring eye for the dramatic features in every scene, and for those that make it real and human, scarcely any for its ethical or historical significance. To read his war-lyrics is like following a flying gleam of light across the smoky turmoil of a battlefield. And the style—this close, masterly sword-play, ever making for the heart of the subject! In the prolix and languid literature of the 'eighties it was indeed a revelation. As a scratch by which we may divine the lion's claw, almost any quotation will suffice. Let us take this stanza from one of his sketches of the Franco-Prussian war :

'Weit der Schwadron war ich voraus geritten,
Und hielt im Nebel, horchend, auf dem Hügel.
Kommandoruf, vom Winde abgeschnitten,
Verworren klang Geklirr von Ross und Bügel.
Da brach ein Reiher, nah, aus Nebelsmitten,
Und nahm den Schleier auf die breiten Flügel:
Sonnübersponnen, unten tief, durchschritten
Die Furt Husaren, Zügel hinter Zügel.'

And as an example of another mood let us take a poem which he himself regarded with special affection :

'In der Dämmerung
Um Glock zwei, Glock dreie,
Trat ich aus der Tür
In die Morgenweihe.

Klanglos liegt der Weg
Und die Bäume schweigen,
Und das Vogellied
Schläft noch in den Zweigen.

Hör' ich hinter mir
Sacht ein Fenster schliessen.
Will mein strömend Herz
Uebers Ufer fliesen?

Sieht mein Sehnen nur
Blond und blaue Farben?
Himmelsrot und Grün
Samt den andern starben.

Ihrer Augen Blau
Küsst die Wölkchenherde,
Und ihr blondes Haar
Deckt die ganze Erde.

Was die Nacht mir gab,
Wird mich lang durchbeben,
Meine Arme weit
Fangen Lust und Leben.

Eine Drossel weckt
Plötzlich aus den Bäumen,
Und der Tag erwacht
Still aus Liebesträumen.'

The same year, 1884, which saw the publication of Liliencron's first volume saw also the first appearance of another notable originator in German literature, This was Arno Holz. Born in East Prussia in 1863, he settled as a young writer in Berlin and, before he was twenty-one, had given decisive evidence of his powers in his 'Buch der Zeit.' He was, and is, almost entirely disregarded by the German public. Even literary friends look blank when you mention his name; booksellers retire to remote recesses of their ware-rooms when you ask for a volume, and generally come back empty-handed; great libraries find no place for him on their shelves. Yet, like a dark sun, Arno Holz, for a time at least, swung the whole system of German literature, more especially the dramatic side of it, into a new orbit. Of him, when his play 'Die Familie Selicke' was performed by the Freie Bühne in 1890, Theodor Fontane wrote in the 'Vossische Zeitung': 'This performance has so far exceeded in interest all that has gone before that here we can truly say that we have discovered new land. This is the parting of the ways; here is the division between old and new.' It may be noted that Gerhart Hauptmann's 'Vor Sonnenaufgang' and Tolstoi's 'Macht der Finsterniss' had already appeared on the stage in question. And when Hauptmann, in 1889, printed the former play, he dedicated it to Arno Holz and his collaborator, Johannes Schlaf, 'in joyful recognition of the decisive influence' which their work had exercised upon his art.

Holz, unlike Liliencron, felt himself possessed of a message and a mission. In the 'Buch der Zeit' this message was concerned rather with a social than a literary reform. He had himself known bitter penury, and he felt for those to whom the bare necessities of life appeared 'erhab'ner als der ganze Faust.' He cried 'to the upper ten-thousand':

'Ein neu Geschlecht, schon wetzt es seine Schwerter,
Schon webt die Sonne ihm den Glorienschein,
Und glaubt: Es wird kein veilchenblauer Werther,
Es wird ein blutiger Messias sein.'

His pictures of the misery of slum life have a poignant note of reality:

'Ihr Dach stiess fast bis an die Sterne,
 Vom Hof her stampfte die Fabrik,
 Es war die richtige Miethskaserne
 Mit Flur- und Leiermannsmusik!
 Im Keller nistete die Ratte,
 Parterre gab 's Branntwein, Grogk und Bier,
 Und bis ins fünfte Stockwerk hatte
 Das Vorstadtelend sein Quartier.

.
 Die Nacht liegt in den letzten Zügen,
 Der Regen tropft, der Nebel spinnt . . .
 O, dass die Märchen immer lügen,
 Die Märchen die die Jugend sinnt!
 Wie lieblich hat sich einst getrunken
 Der Hoffnung goldner Feuerwein!
 Und jetzt? Erbarmungslos versunken
 In dieses Elend der Spelunken—
 O Sonnenschein! O Sonnenschein!'

But all this lyrical work, so far at least as its outward form goes, was in later days rejected and despised by its author. He became absorbed in a new theory of literary art, illustrated in practice by himself and Schlaf (under the pseudonym of Bjarne P. Holmsen) in the plays 'Papa Hamlet' and 'Die Familie Selicke' (1889), and critically explained by Holz in 'Die Kunst' (1891-93). One of his critics, Erdmann, had spoken of 'die höhere Wirkung der Kunst der Wirklichkeit gegenüber.' In this phrase, an echo of course of Aristotle, was concentrated, according to Holz, all the falsity of the old æsthetic, and in the flat contradiction of it all the truth of the new. The thesis which he flung in the face of the worshippers of 'art' may be thus rendered: 'Art tends to return to being Nature. Art becomes Nature according to the measure of the existing conditions of reproduction and of their employment.' Or, as he put it with mathematical brevity, whereas the former critics had declared that 'Art=Nature+x,' x being contributed by the 'idealism' of the artist, the true formula is 'Art=Nature-x,' x being a variable magnitude determined by the 'conditions of reproduction.' The critics, where they noticed this heresy at all, did so with wrath and contempt, but the poets exulted, and Lilien-cron telegraphed his enthusiasm from Munich, 'Hurrah

from here to Berlin!' A discussion ensued, in the course of which the position first taken up seems to have been shifted. It was objected that music and architecture never in the least tended to 'become Nature' and could not do so without disaster. One suspects that Holz had overlooked this point. He had indeed an answer—music and architecture did not aim at the representation of external realities but of human moods and emotions, *Empfindungen*. These *Empfindungen* are as much 'Nature' as anything else, but the conditions of reproduction in the given materials forbid any attempt at imitation. All very sound and true, no doubt, but the reference to *Empfindungen* certainly makes the original thesis look much less drastic and significant. Arno Holz seemed to have flown a signal for battle, and it turned out that he had only issued invitations to an æsthetic tea-party. Later, he attempted to right himself by denying that the term 'art' could cover two such different things as a lyric and a temple.

But the root of the matter lies more in what he did than in what he thought about it. His artistic method is called in Germany that of the *Momentaufnahme*, the snapshot method. Of course it is not really that—no art can be; but it does give an extraordinary sense of reality. 'Die Familie Selicke,' a bitter but not ignoble tragedy of common life, is his most important drama, for his 'Cenci' play, 'Sonnenfinsterniss,' is too remote from the range of human sympathies. But the wonderful story called 'Ein Tod,' which appeared in the volume entitled 'Papa Hamlet,' is the finest triumph of his style. A young student has been mortally wounded in a duel. Two comrades watch by his bedside during the night, awaiting the arrival of his mother and sister; as the grey morning light steals in at the dusty window-panes, the wounded lad dies. The short, broken whispers of the two as they tend their comrade, the creaking old sofa, the disorderly room, the atmosphere of anxiety and distress in which the commonplace life of the quarter goes on its indifferent way, make up a picture as poignantly true and real as it is devoid of all *ad captandum* appeals to the sense of horror and disgust in which the meaner kind of realist would have revelled.

In lyrical poetry Holz eventually declared for a new

form which should supplant the more or less mechanical tunes played to 'a hidden barrel-organ,' to which human passion had been heretofore set. Verse should neither be mechanical, like that of the conventional poetry, nor arbitrary, as he conceived Walt Whitman's to be, but conditioned in each line, each syllable, by the ever-varying demands of the subject that was being presented. Here is a striking example from his 'Phantastus'—the second set of poems to which he gave that title:

'Rote Rosen
winden sich um meine düstre Lanze.

Durch weisse Lilienwälder
schnaubt mein Hengst.

Aus grünen Seen,
Schilf im Haar,
tauchen schlanke schleierlose Jungfrauen.

Ich reite wie aus Erz.

Immer
dicht vor mir
fliegt der Vogel Phoenix
und singt.'

It is curiously thrilling, and no one but a poet could have written it. Experiments somewhat similar have been made by Nietzsche, Alfred Mombert, Robert Röss, Schaukal and others; and in English poetry also we see a tendency to abandon strict metrical form for looser measures. In Holz's work it is not really looseness that prevails; on the contrary we feel a sense of strain in the accuracy with which the rhythm is, as it were, clamped down to the thought. Yet without this studious precision the form is apt to impress the reader as more like the dreamy negligence of poetic reverie than the organic structure of true poetic form. In any case, whatever may or may not endure of the critical theories and the technical experiments of Arno Holz, the total effect of his work, like that of Liliencron's, was great and salutary. German literature was suffering from languor, *Verschwommenheit*, cheap idealism. They summoned it to be concise, vivid, realistic, to spurn sentimentality and insincerity, and to come to close quarters with life.

The genius of German literature has always been for verse rather than prose. A pure verse style was formed and widely diffused, while the average prose sentence still remained the involved, amorphous, brain-wearying thing which the reader of German knows only too well. Lessing wielded a mighty influence in many directions, but, although he was the first modern writer of a shapely and lucid prose, he had, in this respect, scarcely any followers. All this has changed. Kurt Martens, in his interesting study of modern tendencies and personalities in German literature, claims with some justice that in the last twenty years German prose has almost come to rival French in polish of expression, in richness and flexibility of phrase. Even the scholars and the philosophers, as well as the artists, have felt the impulse towards a finer and clearer form of expression. Leopold v. Ranke, who modelled his style first on Luther, afterwards on Goethe, is reckoned as one of the first scholars who took pains about his writing. Many writers have since contributed towards this blessed reformation, but none more effectively than Nietzsche. He spent infinite pains on his prose style. It was his ideal to say in a page what others said in a book, to say in a sentence what others said in a page. The aphoristic form of his best-known works shows this tendency *in excelsis*; but the aphorism is not the only form which he commanded. The 'Genealogy of Morals,' for example, is not aphoristic; and what admirable prose, judged by any standard of comparison, this memorable book contains! In this and in other respects Nietzsche is among the great originators in modern German literature, perhaps the greatest of them all. This enigmatic and portentous figure is now beginning to be understood, his extravagances discounted, his enduring achievements valued alike by friend and foe of the ethical theories which he flung with so defiant a gesture into the fermenting chaos of European religious life. To no other contemporary may the words of Goethean wisdom be so aptly applied:

'Doch sind wir auch mit diesem nicht gefährdet,
In wenig Jahren wird es anders sein:
Wenn sich der Most auch ganz absurd gebährdet
So wird zuletzt doch noch 'n Wein.'

The figure of the Superman—as to whose real characteristics Nietzsche himself was never quite clear except that he was like nothing that had yet been created—no longer excites either reverence or revolt; but Nietzsche has nevertheless been a mighty prop and comfort to those who have felt that it is for great personalities to give law to the mob, not for the mob to give law to them. His denunciation of the virtues of compassion and sympathy as a form of slave-morality designed to soften and demoralise the ‘hard, unbridled, predatory’ character of the true noble is a piece of inhuman nonsense; it is not a yea-saying of life but an arbitrary gainsaying of one-half of it. But, as a corrective to Tolstoi, whose religion consists in denying the other half, Nietzsche’s theory of the slave-morality was salutary; while his teaching that war is not necessarily a folly or an evil, but in some important relations an indispensable touchstone of sincerity and strength, expresses an eternal truth which no nation may disregard with impunity. Say what one will—and one must say much—against Nietzsche’s want of sanity and balance, it is true that he was a mighty liberating force, a force making for sincerity and valour, for a clean hard way of living and of thinking. His is the one modern German voice which has really succeeded in making itself heard outside the limits of Germany. It was a voice from the heights:

‘Nicht mehr zurück? Und nicht hinan?
Auch für die Gemse keine Bahn?

So wart’ ich hier und fasse fest
Was Aug’ und Hand mich fassen lässt.

Fünf Fuss breit Erde, Morgenroth,
Und unter mir—Welt, Mensch und Tod.’

From that peak of vision one cannot indeed get very near to humanity, but one can see many things which are hidden from the fireside.

One cannot, within the limits of an article, exhaust or even touch on all the forces which were at work after 1870 in helping the imagination of modern Germany to express itself in literature. The period has abounded in programmes, experiments, daring innovations, ‘kritische

Waffengänge'; and often the fermentation did, as Goethe said, behave itself absurdly and unpleasantly. What of the wine which was to come of it in the end? Looking round us in the present day, one cannot say that it has yet run pure and strong. A great advance has been made in perfecting the instrument and in clarifying the ideals of literature, but there has arisen no great interpreter of life. Gerhard Hauptmann is reckoned with justice as the foremost of German authors in the sphere of creative literature. His sincerity, his passion—mostly inspired, and best inspired, by pity for the weak, the betrayed, the human wreckage tossed about on the clashing tides of the old era and the new—are undeniable; so also is his masterly technique. But the leading figures in his dramas are victims of circumstance, never its masters or victors. Nor are they heroic in defeat; they succumb piteously; and, if it is a function of literature, as Keller said, to help men to realise the best that is in them, we must look elsewhere than to Hauptmann for a German author capable of doing it. But we shall look in vain. We shall not find this faculty in the rich but meaningless arabesques which Stefan George weaves into his 'carpet of life'; nor in the lyrics of Hofmannsthal—exquisite as they often are in their strange music and world-weary grace; nor in such books as Thomas Mann's masterly, but in its deadly accuracy of observation depressing picture of the downfall of 'Buddenbrooks,' a great commercial family of the trading aristocracy of a Free Town, who perish of a plethora of material success and inaccessibilities to ideas; nor need we seek it in the restless violence and jaded eroticism of Wedekind. Of Richard Dehmel there were, indeed, at one time, great hopes that here was a German poet of elemental power, and a thinker to boot, who had absorbed the spirit of the age and would give it to us again in noble and significant form. But one cannot say that he has altogether justified these expectations, or the fine stanzas in which he has compared himself to a giant bird of prey which lifts itself with difficulty from the ground but sails freely in the upper air. We do indeed, in reading Dehmel, get an impression of great pinions beating the ground and a beak and eye meant for the chase of big game; but the

swoop on the prey often misses its aim in a cloud of obscure verbiage, or only captures a sparrow. A gallery of his finest passages in prose and verse is given in Soergel's study of him; in reading them one feels oneself in presence of a master-mind, a master 'maker'; but take up any one of his numerous volumes, and one feels only too soon how often the poise is lost, how the rhythmic energy flags and fails. Yet he, with Lilien-cron, has given a certain tone of virility and self-mastery to an age helplessly engrossed in the pitying or disgusted contemplation of its own blind impulses. He has, in his own admirable words, set that age to consider 'not how much life is worth to us, but the question, at once prouder and more modest, how much we are worth to life.'

This question forms the ground-tone of a whole range of remarkable works in fiction which have been strangely overlooked by German critics; they are not even mentioned in Soergel's comprehensive work. These are the novels and the masterly short stories of Rudolf Lindau. Without a programme, a mission, a message of any kind, except the quiet insistence on a few laws of manhood and honour that lie deep down in the heart of the North European *samurai*, Lindau has produced tale after tale, like 'Das rote Tuch' and 'Die kleine Welt,' in his soberly beautiful and distinguished prose-tales which one cannot doubt will keep their flavour and fragrance when a great deal of much more heady stuff has gone flat. But Lindau, who is in his eighty-fourth year, and who had seen the world, east and west, and played a part in great affairs when many of the poets of to-day were in their cradles, does not concern himself much with the special problems, anxieties or aspirations, whether artistic, moral or intellectual, of the present epoch. His scenery and characters are cosmopolitan in their range—he has a special predilection for Englishmen, whom he draws with complete sympathy and understanding—and his theory of fiction is that the serious interests of life begin just where the ordinary novel leaves off. It is a theory profoundly true, but it does not make for popularity.

Modern Germany, however, by no means lacks writers of talent who, without being forces of critical significance in the spiritual history of the nation, are lifted by

thought, by style, and by artistic purpose above the crowd of mere entertainers. Clara Viebig, for instance, who began to write in the middle nineties, is the leading figure in a group of women-writers who represent a sane and wholesome realism in German literature better than do any of the men—a circumstance sometimes cynically put down to the feminine passion for knowing all about the details of one's neighbour's affairs. Another admirable writer, Marie von Ebner-Eschenbach, together with Anna Croissant-Rust, Isolde Kurz, Helene Böhlau, Gabrielle Reuter, the socialist Lily Braun, Helene Kessler, who, under her pen-name Hans von Kahlenberg, has done some strong but unequal work, and Ilse Frapan, whose tales of Hamburg life have reality and charm (she died tragically in 1908), may be mentioned among the notable figures of this group. But Clara Viebig is certainly the strongest of them. The key-note of her books is the word 'environment.' Thus, one of her earliest novels, and, as some hold, her ablest, 'Das Weiberdorf,' is a drastically painted study of the effects produced by certain industrial conditions in a South German district where all the male inhabitants are migratory labourers working at a distance from their homes for many months at a time. Or again, as in a recent book, 'Die vor den Toren,' she shows us the breaking-up of peasant life by the encroachments of the town. Her characters are rarely individualised, or interesting in themselves—they are types of primitive passions; but she is a master of the art of setting her men and women firmly on the solid earth in certain definite surroundings, the details of which we seem to have seen and handled as if we had lived among them ourselves.

Among male writers, Otto Julius Bierbaum has written lyrics of so much musical charm, and stories of so much wit and fancy, that high hopes were once entertained of his future, and he will probably always remain a favourite with the makers of anthologies. Arthur Schnitzler, a Viennese Jew by birth, is one of the writers whom every one reads and who never fails to interest. He is a master of language; and his descriptions of life are now tenderly intimate, now delicately suggestive, now realistic with a cold and square-cut brutality. The effect at first is a little intoxicating. But one realises

in the end that Schnitzler stands for little more than versatility and virtuosity. His characters often talk philosophically, but the writer himself has no philosophy of life; his personages play their parts in a highly realistic milieu, but they are never in the least real. Against another writer of high distinction, Ricarda Huch—well known as author of a brilliant history of the Romantic movement—the want of a philosophy of life certainly cannot be alleged. She has expressed it more than once with slight variations of language, but never better than in a remark on Karoline Schlegel:

‘It was not that she longed for more grandeur in the circumstances of her life, but her strong nature unconsciously demanded dispensations by which it could be formed and developed. For it is the genius of man to desire whatever can carry him further; he will grasp at misfortune itself if he can make use of it and thereby make good his claim to it.’

That is certainly the right stuff for great poetry. Yet Ricarda Huch is hardly great. ‘Aus der Triumphgasse’ and her last slender volume of poems (1901) are perhaps her finest work. Her attitude, that of a serene looker-on at life, has something in it that is noble and touching; but life itself does not seem to reach us through the veil of subtle and tender meditation which she weaves about its beauty, its heroism and its vice. Sudermann counts as one of the best of German stylists in prose, especially in his early novel, ‘Frau Sorge’; but the promise which he gave of becoming a writer of first-rate importance has not been fulfilled; in books like ‘Der Katzensteg’ and ‘Das hohe Lied’ a quite astonishing futility lies behind the mask of force and daring. Finally, among recent verse-writers, let us name the racy ballads and lyrics of Carl Spitteler and Börries von Münchhausen; the poems of Rainer Maria Rilke, who produces nothing in particular with an exquisite grace of manner; and those of Richard Schaukal, who is also highly endowed with charm of style, and occasionally has something to say—witness these beautiful quatrains:

‘Manchmal mein ich es zu halten
mitten in der Nacht,
was in wechselnden Gestalten
mich so selig macht.

Und es ist mir dann am Tage
 unter meinem Kleid
 dass ich etwas an mir trage,
 das von Ewigkeit.'

Looking at contemporary German literature as a whole, one cannot help being reminded of what Goethe said of the deficiencies of that literature prior to the Seven Years' War. 'Looked at closely,' he wrote in 'Wahrheit und Dichtung,' what German poetry lacked was contents, substance (*Gehalt*), and in particular a national substance.' The wars of Frederick the Great gave it this national *Gehalt*; and Lessing's great play, 'Minna von Barnhelm,' was the first important work which used this material for literature; it had, therefore, a quite epoch-making effect. And now the dreams of German poetry have come true; the work begun by Frederick the Great has been crowned and completed by a supreme, a final achievement; but German literature, which had once far outrun the march of political history, now seems to lag as far behind it. We do not call the present a day of great things in England. Here too our imaginative writers (how much we feel in English the lack of a word such as *Dichter*!), with all their brilliance, seem restless, fragmentary; they are passionate seekers for conviction and definiteness rather than masterful and assured. Yet in the work of all our *Dichter* there is a common national undertone. They have widely varying ideals in politics, religion and morals, and most of them would probably detest the idea of being labelled as patriots; but they move freely, they and their works, through all ranks and sections of English life. Each of them feels himself speaking to the whole nation; each of them knows that a good half of what he wants to say will be perfectly understood without ever appearing on the printed page. Without suggesting any comparison on the score of intrinsic merit, we may say that literature in Germany is in a far different position. Rarely does one gain the impression that a German poet is speaking not to a group or a party but to his countrymen at large. Far more national, in this sense, than the writers of the German Empire are those of 'greater Germany,' such as Meyer and Keller.

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The *Reich*, indeed, has become an object of frank detestation! Thus Arno Holz felt that to 'think imperially' was almost if not quite the last thing that a self-respecting poet could bring himself to do:

'Ich denke lieber schwarzweissrot
Als mit dem Mob fraternisieren.'

Nietzsche raged with almost insane vehemence against Germany and the Germans. The hero of a recent novel of exceptional interest ('Wiltfeber: der ewige Deutsche') tells us that, while most things in modern Germany are secondrate, whatever is Imperial (*reichisch*) is thirdrate. Kurt Martens, in the brilliant little book to which we have referred, even laments the days of Germany's political *Zersplitterung* and helplessness:

'It is true that in politics and economics there was then but little to swagger (*renommieren*) about, but swaggering was not then in any case a German trait. Capitalism and militarism were not then even in the hobbledehoy period; they were but feeding up as apple-cheeked urchins! The German citizen went soberly and considerably about his business, talked harmless politics with his neighbours, and sang in the evening his beautiful and dreamy old songs. The ringing trichord made up by the voices of the drill-sergeant, the petty official and the commercial traveller had not then become, as it has since gradually done, the *fanfare* of the new German nation. We had then an aristocracy with aristocratic principles and forms of life, a corps of officers mainly recruited from this aristocracy; we had also a patrician class in trade and commerce, and an aristocracy of culture who understood the temperate enjoyment of life. In Germany culture was then indigenous; Germany had style. Now Germany is an arsenal, a stock-exchange, a madhouse, a monster hotel' (pp. 141, 142).

In this sort of society the poet is obviously not at home; and yet it is precisely he who ought to refine and ennoble it. But the German poet, and more particularly the German poet's wife (proceeds Herr Martens), have never escaped from Bohemia, once perhaps their natural refuge, now the ghetto where their tribe languishes in unhealthy isolation. A few of the more wealthy and 'respectable' of them may occasionally appear at the sort of receptions to which all the world and his wife are invited;

but, speaking generally, they are not regarded as *salon-fähig*. Politics have nothing to do, directly at least, with this unfortunate situation :

'Our poetry at the present day will hardly be accused of revolutionary tendencies. It has left this stage behind it. No, it cherishes far more dangerous inclinations; it seeks to get to the bottom of men and things; its ideal is the investigation of all social and psychological phenomena. No longer does the poet go among the people with the rhetoric of the thirst for freedom on his lips, but with scrutinising eyes, reticent or merely questioning, very critical and at first analytic rather than synthetic, fastidious in his taste, often obscure in expression. It is not surprising, therefore, that such personalities, quite apart from their works, do not awaken the confidence of a society which feels itself ceaselessly observed, judged, and often condemned by them. And in truth the calling of a poet—so far as one can speak of his having a calling in the civic sense—is one of the most hated among us. Suspected by officialism because it cannot understand him, hated for his individualism by the aristocracies both of money and of birth, feared by the bourgeoisie like a pike in the carp-pond, ignored almost entirely by the artisan and totally by the peasant—there stands the German poet, insulated from all personal relations with every section of the nation from which he sprang and to influence which is the very end of his existence' (pp. 185, 186).

From this striking picture we may judge that the unification of Germany is still largely a matter of external forms, and has yet to become organic and vital. Indeed no German would deny this patent fact. Prince von Bülow, in his recent work, 'Imperial Germany,' has spoken of the necessity of reconciling Prussian political supremacy with the intellectual life of South Germany. But, with all deference, we would urge that there is no such geographical distinction as that which he here suggests. The best stuff in modern German literature comes from North Germany and East Prussia; let us recall such names as Liliencron, Arno Holz, Nietzsche, Paul Heyse, Gerhart Hauptmann, Richard Dehmel, Rudolf Lindau, Ricarda Huch, Fontane, Theodor Storm. The distinction is rather between the forms of social and political life and the spirit to which they no longer correspond. Literature may flourish under a monarchy;

it may flourish under an aristocracy; it is possible, though the evidence is still ambiguous, that it may flourish under a genuine democracy; but it can never fulfil its highest functions, can never have that national *Gehalt* of which Goethe spoke, in a country where the forms of society and of government have outlived their day, have no conviction and vitality behind them, and remain not as the growing framework of a living organism, but as lifeless impediments in the way of its healthy functions. This, or something approaching to it, is the case in modern Germany. It does not seem likely that a nation can be educated to the point to which the German people are educated, and that personages like the Colonel—nay, the Lieutenant—the Junker, and the bureaucrat will permanently remain in the position of moral and social authority which Prussian ideas assign to them. Some day the rigid structure must surely be loosened; the tides of intellectual life must sap and dissolve it; and it will be transformed by the social chemistry which is at work in every living and growing nation into forms more consonant with the needs and characteristics of the modern German spirit. We are witnessing a period of transition, of widespread disintegration and pitiless analysis. Let the reader take up any number of 'Simplicissimus' and he will find himself in presence of a force more profound and more destructive than all the *Freiheitslieder* of Arndt, of Freiligrath and of Herwegh. It is no longer a case of steel against steel, it is a case of essence against essence. How will the struggle end? Perhaps in a new and more glorious Germany than the world has yet seen; perhaps in a torpid and sterile nation in which nothing but a mighty convulsion can again prepare the soil for the seeds of poetry and thought.

T. W. ROLLESTON.

Art. 3.—THE ENCROACHING BUREAUCRACY.

1. *Forty-second Annual Report of the Local Government Board, 1912-1913.* [Cd 6980], Session 1913.
2. *Report of the Board of Education.* R. 6707, Session 1913.
3. *Finance Accounts of the United Kingdom;* No. 173, Session 1913.

THE trend of government in England of late years has been towards bureaucracy and centralisation, with a constant widening of the area of control and increasing interference with the functions of daily life. It is a reaction from the old doctrine of *laissez-faire*, and shows the usual tendency to go from one extreme to another. The 'let-alone' theory is out of fashion, and grandmotherly legislation and official administration have taken its place. A common fallacy is that the vague entity called the State is to undertake or regulate everything. All that the individual has to do is to obey. In a highly civilised community like England, public servants are essential, but their number has become disproportionate and excessive. A foolish and vulgar notion prevails that it is especially respectable to enter the public service. Thousands of lads and girls regard this as the goal of ambition, and scorn handicrafts, or trade, or commerce, or the professions.

The modern practice with most Government departments is to assume more and more of legislative as well as of administrative authority. They issue orders, frame regulations, and decide on important details which Parliament has not wits or time to settle. The appetite for control enlarges by what it feeds upon. The more grist supplied to the official mill, the more does it want to grind. Tons of letters, schedules, reports, and returns are poured into the Whitehall Offices every year, and an enormous flood of correspondence pours forth from them on an endless diversity of topics. Inspectors, examiners, auditors, and a long gradation of clerks are occupied, at vast cost for salaries, travelling, stationery and printing, in an endless round of supervision. It is not a mere rhetorical embellishment to say that the nation is in danger of being governed to death, and that a certificate

and authorisation will soon be required for the simplest act of personal, domestic, and business life. There are cohorts of inspectors of factories and schools, of shops and workrooms, of mines and railways, of bakehouses and slaughter-houses, of weights and measures, of adulteration of food, drink, and drugs, of workhouses and boarding-out, of fisheries and explosives, of infant life protection and vaccination, besides medical officers of health, sanitary inspectors, inspectors of nuisances, county and borough analysts, truant visitors and others.

Protests have been made from time to time in Parliament and the Press against this alarming increase of bureaucracy. The word is of alien origin, and the condition it represents is not indigenous to English soil, but savours of France or Germany, or, still more, of Russia. The rate of increase has been accelerated in recent years by the creation of new offices and the assumption of fresh duties. This is a menace to constitutional rights and liberties. Serious inroads are being made upon local self-government by a system of centralised control, from which there is virtually no appeal. We are threatened with a scheme of ruling by chief clerks. It is not to be tolerated that the servants of the public, however efficient and well-meaning, shall be allowed to become its masters. All who are engaged in trade and industry, all who have served on County or Borough or Urban or Rural District Councils, or on Boards of Guardians, or on the defunct School Boards, know from unpleasant experience what it is to struggle under endless coils of red-tape woven by permanent officialism. We need less central authority in numerous matters of detail, on which local knowledge is competent to form a sound judgment. Granted that certain broad principles should be laid down by the central authority, their particular application should be left to each locality. Instead of this common-sense plan, everything must now be done after an inexorable official pattern. Traditions have been formed, and a system has been established, gradually and silently, whereby thousands of elected bodies throughout the country are reduced to a state of pupillage and subjection.

These considerations point to the necessity of a searching enquiry into the modern system of government

by means of so-called Boards—a convenient euphemism for unseen and nameless administrators by whom the machinery is worked. The Cabinet Minister who is the titular head of each of these Boards must depend to a large extent upon his subordinates. He is transient, but they are permanent. He is liable at any moment to be displaced or transferred by a shifting of places in the Cabinet, or by an adverse vote. His parliamentary, Court and social duties absorb much of his time. He may have a definite line of policy, but there are office traditions which cannot be disregarded. A timid Minister will hesitate before provoking hostility or entering upon a revolution. However dominant his will, and however great his capacity for work, he knows there are limits and restrictions. Mr John Burns stated in the House of Commons on June 12, 1913, in reply to strictures upon his administration, that he got his own way when *he* was right, and his subordinates got their way when *they* were right. Who decided the point, did not appear. In such cases there is probably a tacit adjustment by way of working compromise; but the officials have the advantage of being in possession. No censure or reflection on persons is here intended. As a whole, the Civil Service is an admirable and a competent body, deserving the eulogium once pronounced by Mr Gladstone. Our criticism is directed against a huge scheme embodying a potent but hidden force that dominates the country.

The almost universal scope of this centralisation, and the extent and variety of its assumed functions, may be shown by a recital of some of the numerous subjects now controlled. Concerning such of them as relate to public health or safety, to good order, to the adequate protection of life and property, or to other matters of absolute and obvious utility, no exception can be taken; but the range is far wider. Manufactures and commerce, trade and industry, agriculture and machinery, patents and trade marks, mercantile shipping, lighthouses, and harbours, have come under the eyes of the modern Argus. Sanitation and water-supply, gas and electric lighting, telegraphs and telephones, meteorology and explosives, the relief of the poor and the care of the mentally defective, are regulated by numerous Acts of Parliament, as interpreted by official commentaries and

glossaries. Shop hours and holidays, the period of work and the scale of wages, labour disputes and demands, modes and rates of travel, the carriage of goods and mutual liability, are prescribed and regulated. Education, science and art, stage plays, theatres and music halls, are brought, in varying ways and degrees, within the purview of the Government. Roads, canals, tolls, and bridges, open spaces and allotments, the pollution of rivers and the construction of light railways, the confirmation of County Council orders and the approval or rejection of bye-laws, the protection of wild birds, and the prevention of cruelty to children, with many other miscellaneous matters, are subjected to rules to which unquestioning obedience must be rendered.

A little volume by Mr Bernard Houghton, entitled 'Bureaucratic Government: a Study of Indian Polity,' traces the transition from autocracy to bureaucracy in our vast Oriental dominions. The position taken by the author, a retired member of the Indian Civil Service, is that, although the ancient personal touch between the ruler and the ruled has vanished, yet, if efficiency be the crown and the glory of government, the modern system of Indian rule is, without question, efficient. But he makes the pertinent enquiry whether a bureaucracy such as governs India is likely to discern the signs and dangers of altered conditions, which are still changing, so as to set its house in order and govern on more popular and generous lines. His answer, as he admits with regret, is an emphatic negative:

'If experience in history teaches clearly any one lesson, it is that a bureaucracy will in no circumstances reform itself. If it is to be reformed at all, it must be by powers outside it and antagonistic to it. . . . And if against reform in general, how much more against reforms which must abrogate official prerogatives, undermine their authority, and transfer powers hitherto wielded by officials alone to the hands of the common people. A bureaucracy will never consent to such a profanation' (p. 177).

The concluding chapter in Mr Houghton's book, entitled, 'Towards Democracy,' deserves careful perusal. It casts a vivid sidelight upon the main theme of the present article.

The principal offices which exercise jurisdiction over domestic affairs are the following. First of all there is the Secretary of State for Home Affairs. The Chancellor of the Exchequer, to whom the Customs and Excise and the Inland Revenue are subordinate, is mainly responsible for collecting the taxes. The Postmaster-General is responsible for an army of servants, and for the performance of many duties besides the conveyance of letters and telegrams. An extensive and varied range of mercantile subjects come within the scope of the Board of Trade. The Boards of Education and of Agriculture have undergone rapid expansion, and new functions have recently been assigned to them. The Commissioners of Woods and Forests, the Office of Works and Buildings, the Charity, the Lunacy, the Civil Service, the Ecclesiastical and the Railway Commissions, and a number of other specific departments, have their allotted duties, some of them traditional and formal, and all of them differing in degree of importance. The Judiciary comprises many branches of legal administration, from the Lord Chancellor, through successive gradations, down to County Court judges. Numerous offices similar to the above exist in Scotland and Ireland; and the persons employed therein, and in other branches of public and local administration, are, approximately, 100,000.

To take some of these departments in detail—the Home Office is a kind of general-utility actor on the public stage. It employs 200 factory inspectors, 7 inspectors of explosives, and 47 for mines, besides others for anatomy, inebriates, aliens, reformatories, and cruelty to animals. The Home Secretary exercises control over the quasi-military police force and the prisons, appoints stipendiary magistrates, and advises on the exercise of the prerogative of mercy. He is the medium of communication between the Sovereign and the people; he is generally responsible for the maintenance of the public peace, and for the enforcement of rules made for the internal well-being of the community.

The Board of Trade and Plantations, to give it the full title, was originally a Committee of the Privy Council. Chambers of Commerce and the mercantile community are not enamoured of its procedure in respect of bankruptcy and the winding-up of limited companies.

Employers and workpeople do not find the Labour Department by any means perfect. Nor are representatives of the shipping interest, in which so many millions of capital are embarked and which represents the larger part of the world's carrying trade, satisfied with the manner in which they are treated. Whether the heterogeneous functions of the Board of Trade are worth the half-million per annum which is the total cost of this somewhat cumbrous branch of government is open to question. The President not long since created an additional assistant secretaryship, making six in all, at salaries from 1000*l.* to 1500*l.* The only intimation appeared in the newspapers. Parliament was not consulted, nor was its sanction obtained. This appears to be the custom, judging from what has occurred recently in the Foreign and Colonial Offices and elsewhere.

Presumably, the consent of the ubiquitous Treasury was given in the above cases; but, when 'My Lords of the Treasury are pleased to direct' that something be done, it means that all the needful arrangements have been made by the head of a department. A rigid control is exercised over other Government offices in appointments and in spending, and the practical effect is to uphold the authority of the Treasury. This dominating body, technically described as 'The Commissioners for executing the office of Lord Treasurer,' comprises, first and foremost, the Chancellor of the Exchequer, then the First Lord of the Treasury, who may be also Prime Minister, as at present. In the latter capacity he has quite enough to occupy his time and attention with questions of general policy and with the leadership of the House. Next come the Financial Secretary and the Patronage Secretary, or Chief Whip. Finally, at an immense distance in point of authority, are the Junior Lords of the Treasury, whose duties were defined by Lord Melbourne to be, 'to make a House, to keep a House, and to cheer the Minister.' In modern times, their chief duty, in common with other subordinate appendages of the Ministry, appears to consist in addressing party meetings all over the country, especially during bye-elections. The real power of the Treasury is exercised by the permanent staff—distinguished and capable men, of wide experience and high character, but inheriting by

tradition a kind of corporate omniscience and omnipotence. An unconstitutional practice has grown up of granting thousands of pounds for commercial, educational, or scientific objects, or for local or sectional purposes. This method, like grants-in-aid generally, and like the vast sums apportioned by the Development and Road Improvement Boards, is objectionable and needs to be checked. The Road Board receives annually from the Exchequer about 600,000*l.*, being the net proceeds of the Motor Spirit duty; and the Development Board has a grant of half a million. These vast sums are disbursed practically without control. There are, of course, sundry Commissioners at 1000*l.* each, and the customary official staff, with excellent salaries.

How wide are the powers that can be exercised, nominally by Cabinet Ministers, but really by high officials, though ostensibly in the public interest, is shown by an incident that occurred in 1912. A Government Bill was quietly engineered through Parliament, by which an extensive freehold property and a choice and valuable library of 200,000 volumes, the whole worth at least 300,000*l.*, was alienated from the London Institution, Finsbury Circus. This was done in defiance of a Royal Charter of 1807 and an Act of 1821, which created a body corporate, with perpetual succession and absolute powers over the property. The prescribed objects were 'to promote the diffusion of Literature, Science, and the Arts, by means of lectures and experiments, and by easy access to extensive collections of books, both ancient and modern, in all languages.' In the pursuit of these objects valuable public services were rendered during a lengthened period. Owing to changed conditions in City life, the Board of Managers had been occupied for some time in devising methods for enlarging the scope and increasing the usefulness of the Institution. Authority for this was given by the Proprietors, acting under the following clause of their Charter: 'We will, constitute, and grant that the whole property of the Institution shall be vested, and we hereby vest the same, solely and absolutely in the Proprietors; and that they shall have full power and authority to sell, alienate, charge, or otherwise dispose of the same, as they shall think proper.' Nothing could be more explicit and positive as to the

ownership and control of a valuable estate, created by the contributions of the original 900 Proprietors, and transmitted to their successors by bequest or sale of the shares.

Early in 1908, when modifications and extensions were being considered, and when architects' drawings had been prepared, the Managers were requested by Lord Haldane, Chairman of the Royal Commission on University Education in London, to postpone action for a time. This was conceded, as a matter of courtesy; but no further communication was received for more than three years, except formal acknowledgments of letters of enquiry. The Managers were persistently ignored, and no attempt was made to ascertain their wishes. They were denied even the semblance of making a bargain. Not until November, 1911, the day before an Interim Report (Cd 5967) of a Departmental Committee of the India Office—to whom the matter had been transferred—was laid before Parliament, was any information vouchsafed as to the contemplated scheme. It was then found that plans and estimates had been prepared for structural alterations and additions, and for establishing a School of Oriental Languages. A Government Bill was introduced in 1912 to give effect to the project, and in due time received the Royal Assent. Some of the Proprietors endeavoured to prevent the spoliation, but the majority, wearied and dispirited by the long delay, felt it to be hopeless to oppose a Government measure, and were forced to submit. Their only compensation, grudgingly conceded by the Treasury officials, was that they were permitted to receive 25*l.* for each share, which absorbed about 23,000*l.* of their own money, out of a sum of 35,970*l.* invested in Consols. About 150 proprietors, designated 'continuing members,' who gave notice, have a limited use on sufferance, defraying their own expenses, but they cannot increase their number or transfer their membership, which lapses when their number is reduced to eighty.

This modern variant of the ancient story of Naboth's Vineyard is consonant with the current popular theory, which sound Liberals of a former generation would have repudiated with scorn, that property has no rights but only duties, one of which is to surrender it on demand for some alien purpose, or for the supposed benefit of

those who have none. In like manner, the few who contribute the major part of the taxes and rates are outvoted in their application by the many who pay little or nothing. It is easy to be generous with the money of other people. Under the operations of the Finance Act of 1910, and with the surveillance that is being rigidly maintained, the powers of the Inland Revenue Department, which is directly controlled by the Treasury, have vastly increased; and the annual cost has grown to a million and three quarters. Much friction and irritation are caused by the manner in which those powers are exercised. The same department has taken upon itself, with the sanction of the Treasury officials, to allow members of the House of Commons to pay income tax upon 300% only of the 400% which a majority of the House voted to themselves as annual salary.

The great spending departments furnish many instances of the growing tendency to officialism. According to the Budget of 1913, a sum of 28,235,000% was required for the Army during the financial year ending April 5, 1914, and 46,309,000% for the Navy. The Civil Service absorbs 54,988,000%. Supplementary Estimates have been submitted, as is always the case, owing to the loose and unsatisfactory manner in which the national finances are administered. Whether value is received for this gigantic outlay is an enquiry beyond the scope of the present article. The whole system of our naval and military expenditure is faulty, as placing the virtual control in the hands of a bureaucracy, in spite of the Army Council and of the Committee of Imperial Defence. There have been frequent and costly reconstructions and readjustments within living memory, but finality is a dream. Theoretically, the First Lord of the Admiralty and the Secretary of State for War are at the head of these two great departments, and are supposed to be responsible to Parliament. A semblance of control appears, but without the reality. Lord Randolph Churchill resigned his high office of Chancellor of the Exchequer because he could not accept and justify the growing expenditure. His Select Committee on the Army Estimates reported in 1888 that the accounts were examined at the War Office 'with such cautious minuteness and such pedantic rigidity that an enquiry as to

the expenditure of four shillings and sevenpence bore eight or nine signatures upon it, and was not fully disposed of until six months after payment was made.' Endless letters were written about trifles; e.g. 'a charge of a shilling for a cab, a bill of half a crown for candles, a rent in a soldier's jacket, and a missing nosebag.'

Similar statements have been made repeatedly, with wearisome iteration, by the Committee on Public Accounts, but no effectual remedy has been devised. The criticisms come too late, and are thrust aside in the rush of current politics. The annual Appropriation Act is a solemn farce. The Exchequer and Audit Department has an Auditor-General at 2000*l.*, an assistant at 1500*l.*, 24 principal and senior clerks, and 183 examiners; the total expense being nearly 70,000*l.* These functionaries burrow their mole-like way through the involved public accounts; and their reports and observations, when presented, are long out of date, and rarely serve any practical purpose. The Consolidated Fund is chargeable with no less a sum than 37,209,000*l.* which does not come under annual review in the House of Commons, and is constantly increasing. If high officials had to produce before a Committee of the House satisfactory reasons and proofs for the demands made, as is the case with the Senate and House of Representatives of the United States, and if a rigid enquiry were instituted into the previous year's expenditure, an improvement might be effected. As it is, when we are threatened with war, we are assured that special preparations are needed; and, when it occurs, there is always a repetition of the abuses and scandals of the Crimea.

The public has a proverbially short memory, yet it cannot wholly have forgotten what took place in the Transport Service and in the purchase of thousands of horses during the Boer War, or the waste and mismanagement connected with the stores. Without traversing ground that is painfully familiar, one authentic incident may be recorded which shows how the bureaucratic method operates. An English manufacturer had placed with him successive orders for needles, amounting in all to several millions. When the first order arrived he perceived that the sealed pattern was obsolete. Instead of being egg-eyed, with a groove for the easy admission

of the thread or cotton, the hole was round, making the use of the needle difficult for the clumsy fingers of soldiers. He wrote to explain this, adding that although the modern pattern cost more to make he was willing to bear the additional charge. The reply was that there could be no deviation from the sealed pattern. He journeyed to London more than once, and was referred from one official to another, giving the explanation to each, and being told by each that nothing could be done. Wearied and annoyed, he demanded at length to see someone who really possessed authority to deal with the matter, and finally succeeded in convincing the high functionary. After more correspondence and enquiry, and minuting and countersigning, leave was granted to discard the ancient sealed pattern, which might have come out of the Ark. A curious sequel occurred. Some of the manufacturer's workmen had gone to the seat of war, and he kept their places open. When they returned, he gave them an entertainment, and during the evening remarked that he supposed they had plenty of needles while with the army in South Africa. To his surprise, they said there was usually only one needle to half-a-dozen men. What became of the millions no one ever knew. Perhaps they are in store somewhere to this day, awaiting a signature for their release—unless they are now rusted and useless. Inventors and contractors have narrated melancholy stories of the way in which they were treated by Government officials in carrying out a hide-bound system. Dickens's account, in 'Little Dorrit,' of the experiences of Daniel Doyce and Arthur Clennam, is not a myth of the imagination. The recent Army Canteen scandals are only too clear a symptom of an apparently ineradicable disease.

Without attempting an examination into all the numerous branches of the public service, there are three other great and growing departments which call for particular notice, because they furnish striking illustrations of the officialism that prevails, and because of their immense, irresponsible, and dangerous powers. They resemble the tentacles of a gigantic octopus. The Board of Agriculture and Fisheries was established by an Act of 1889, and to it were transferred duties previously laid on the Privy Council, in relation to diseases of animals

and the functions of Land Commissioners for England. In addition, it has to regulate the transit of animals from infected districts and the exportation of horses; to deal with insect and fungus pests; to obtain and distribute information on agriculture, horticulture, and forestry; to administer grants voted by Parliament for agricultural education; to collect and publish statistics; to execute the Fertilisers and Feeding Stuffs Act. Besides these diversified functions it has to control the redemption and reapportionment of tithe rent-charge, and the enclosure of common lands; to enfranchise copyholds; to administer the Small Holdings and Allotments Acts; and to frame International Fishing Regulations in the North Sea. By an Act of 1903 other powers and duties, formerly exercised by the Board of Trade with respect to fisheries generally, were transferred to this department, which also controls the Ordnance Survey and Kew Gardens. Thus its functions are wide and varied. Like the two other Boards under notice, it has a Parliamentary Secretary and a Permanent Secretary. There are numerous high officials, excellently paid, 66 inspectors, and a large staff of clerks, the total cost of the office exceeding 200,000*l.* per annum.

The second of the spending departments that demand notice is the Board of Education. When the question of public elementary education was first taken up, in a feeble and tentative fashion, eighty years ago, the original parliamentary grant of 20,000*l.*—increased to 30,000*l.* in 1839, and twenty years later to 750,000*l.*—was disbursed under the authority of a Committee of the Privy Council. Its Vice-President continued to act as Minister of Education until 1899, when the present system was instituted. The position of President of the so-called Board of Education, with its archaic and perfunctory methods, has been filled with more or less efficiency; but during the last eight years the changes have been frequent, partly from conspicuous failures, and partly from Cabinet mutations. The result is that increasing authority has devolved upon or has been assumed by permanent officials. The system which passes under the name of elementary education is administered by this nominal Board in the extreme spirit of bureaucracy. To its duties have been added secondary education; and there are signs that other spheres are to

be conquered and annexed. The Victoria and Albert Museum, the Royal College of Art, the Science Museum, the Solar Physics Observatory, the Geological Survey of Great Britain, and the Museum of Practical Geology are subject to its sway. It has a Medical Department, an Architect's Department, a Legal Department, and a Welsh Department, with a Universities Branch for the training of teachers and for the supervision of Training Colleges.

These complex functions involve a number of well-paid posts and a vast machinery of subordinate offices, making ceaseless whirr and clatter, but chiefly occupied in grinding the wind. The examiners and inspectors exceed four hundred. Their power and influence are well known to school committees and to teachers. The mode of assertion may vary with individuals, and some are more gracious and considerate than others, but it is dangerous to entrust such authority to any class of officials. The inspectors might say that they do no more than carry out instructions; but the gravamen of the charge against the Education Department is that a cast-iron system has been devised, to which local circumstances must bend. A long series of Revised Codes and rules, and regulations and restrictions without number, prescribe what is to be done. From this Procrustean bed, prepared by academic doctrinaires, there is no escape. Education Committees appointed by County and Borough Councils, and local school managers, are held in rigid subjection, and are taught the way they must go and the pace they must observe. They are made to erect new school buildings, after patterns approved in Whitehall, irrespective of local needs and regardless of cost. If any of the orders are infringed, the Government grant can be withheld. Doles are made for special purposes and subjects and in aid of certain districts. The salaries of teachers, the size of classes, the shape of the seats and desks, the daily curriculum, the cubical contents of rooms, the lavatories and hat-pegs, and everything relating to the minutest routine work are matters for perpetual interference.

The Local Government Board, the third of the crucial instances under review, exemplifies in an astounding degree the spirit of modern bureaucracy. For this

reason it demands somewhat detailed examination. It is the outgrowth, by a Statute of 1871, of the old Poor Law Board, but with many duties superadded and with powers that are virtually absolute. It not only regulates poor relief and sanitary arrangements and the action of local authorities, but it exercises some seventy subsidiary functions. Its administrative expenses are 300,000*l.* per annum. It has a Parliamentary and a Permanent Secretary, and six assistant secretaries with salaries from 1000*l.* to 1500*l.* There are architects, legal advisers, a parliamentary agent, a medical staff, two bacteriologists, a controller of town-planning, and a geological adviser. In addition to a little army of clerks, there are 82 inspectors and 76 auditors, who cover reams of paper with reports which not one person in a thousand ever sees or hears of. These functionaries and their superiors have to deal with some 30,000 local authorities, including County and Borough Councils, Urban, Rural District, and Parish Councils, Boards of Guardians, Overseers, and Joint Committees for Small Pox and other infectious hospitals. These also have their clerks; and most of them have surveyors, engineers, medical officers of health, sanitary inspectors, rate collectors, and the usual official retinue. All these bodies are audited, advised, controlled, circumscribed, and checked in endless ways from Whitehall. Accounts must be kept in prescribed forms, in a superfluity of books, involving constant repetitions of the same entries, but affording no effectual check. District auditors are appointed to exercise a supervision that is sometimes pedantic and absurd. They can disallow or surcharge any items; and their action is confirmed or reversed by the supreme permanent officials on appeal. Certificates having all the force of law are likewise issued, allotting the Exchequer contributions in aid of rates, adjusting payments among local authorities, determining boundaries for purposes of certain elections, and fixing the number of members.

Boards of Guardians, elected by the ratepayers as their representatives, are subject to bewildering Consolidated General Orders, promulgated since 1842, sixty-seven in number, which have never been codified, and to innumerable Administrative and Special Orders. Of the latter, about 1500 are issued annually. Guardians cannot

take a step or lift a finger without permission. Their duties are defined with irritating minuteness. They are reprimanded if some official espies an infraction of a petty rule, or if he thinks they are too generous in granting out-relief. It is far more difficult to grant an extra sixpence a week to some poor old woman than it is to lavish hundreds of pounds on new structures or new machinery. The dietary scale in the workhouse is fixed and absolute, and must not be deviated from. The ingredients of a suet-pudding or of a basin of soup or gruel, and the quantities of bread, cheese, tea, etc., are rigidly prescribed. Other Boards of Guardians must have had experiences similar to that in one large Union a few months ago. The old and infirm men asked to have their allowance of four ounces of potatoes increased, because of the difficulty in masticating solid food. The doctor recommended eight ounces, which was approved by the House Committee and by the Board. Sanction was sought from Whitehall, and an inspector held a solemn enquiry. After an interval of several months, leave was granted to increase the quantity to six ounces. Appointments of officers are made subject to approval, which must also be obtained for any change in salaries or pensions. No dismissal can be made without leave; and officers are encouraged to regard themselves as subject to the Local Government Board, instead of to the Guardians who appoint and pay them. In these and other similar matters the central officials show generous consideration towards local subordinates. 'A fellow-feeling makes one wondrous kind.' There occurred recently a flagrant case of dismissal for gross insubordination, neglect of duty, and defiance of reasonable orders. Pressure was brought to bear, and the Guardians had to pay a large sum as compensation for loss of office. The offender had no difficulty in obtaining another post, through influence. When an officer, however humble, resigns, even though it be to marry or to go into trade, information is requested as to character and the manner in which duties were discharged. What object is thereby attained no one can say, but it furnishes employment to a number of clerks, and helps to swell the congested archives.

This shadowy Board was designed to be a controlling
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or restraining authority, instead of which it stimulates, and often enforces, expenditure. It is impossible to traverse the country without noticing the spacious and costly buildings that have been erected for pauper uses, and containing all the appliances of what is called 'sanitary science'—which is in perpetual flux—and the latest and most expensive machinery and fittings. No one desires that the poor, and especially the sick poor, should be neglected, but, in fact, they are treated in a manner to which they are unaccustomed, and which they do not appreciate. Speaking generally, it costs seventeen pence to disburse each shilling of indoor and outdoor relief. The officers' dietary is often on a lavish scale, and their salaries and emoluments are out of proportion to what they could earn in trade or in private employment. In addition, there are generous pensions looming in the distance, to which their own contributions are microscopic. Public attention needs to be called to the facts above recited, and especially to the extravagant outlay forced upon localities in the erection and maintenance of model workhouses and infirmaries, model schools and dwellings, model lunatic asylums and sewage works, and baths and washhouses.

Permission is also freely granted for rearing stately town halls and municipal buildings, and for large expenditure on sewers, water supply, roads and kerbings, and on other works. Formal public enquiries by Whitehall inspectors, when local authorities are seeking powers to borrow money, furnish no adequate safeguards. The result is usually a foregone conclusion, and the permission sought is rarely refused. Many districts are burdened by enormous debts, contracted for these purposes, in opposition to public sentiment, and when no necessity existed. There are fatal facilities for borrowing, but the repayment of loans, with accrued interest, during the usual term of thirty years—the lifetime of one generation—is a serious demand upon ratepayers. Archdeacon Paley used to say that cash payments for purchases were a salutary check upon the feminine imagination. Forty years ago, local debts amounted to 92,000,000*l.* They are now 500,000,000*l.*, or over two-thirds of the National Debt, which, according to the latest Return, is 711,288,421*l.* Corporation stocks no longer command a ready sale and

high prices; and there is increasing difficulty in placing new loans, except on more onerous terms. Bankers and financiers view with concern the increase in local indebtedness. What Lord Bacon calls 'a solution of continuity' is never reached, because fresh obligations are perpetually incurred. No business and no household could be carried on under similar conditions without speedy insolvency.

For a lengthened period the Whitehall authorities presented the customary official *non possumus* to the boarding-out of pauper children. Huge barrack schools had to be erected and maintained at enormous cost at Anerley, Hanwell, Sutton, Southall, Forest Gate, Brentwood, and many other places. Some of them were closed long after their failure had been demonstrated, and were sold for other purposes, but at a heavy loss. Not until after repeated outbreaks of ophthalmia and other diseases, and not until it could no longer be denied that a pauper taint was being perpetuated, and that the expense of maintenance was excessive and indefensible, was a change of method grudgingly conceded. Even now, boarding-out is permitted only in the case of orphan and deserted children, the number being not more than 11,397 out of a total of 70,676 in workhouses and other institutions, besides 178,815 receiving out-relief, according to the last return. With regard to others chargeable to the rates, the system of cottage homes or scattered homes has been introduced to a certain extent; but another plan, far more costly, is being adopted—that of creating village communities within a ring fence, thus isolating the children, as in the older district schools. Poplar Union, in the East End of London, noted for its crushing poverty and its heavy rates, has spent 162,000*l.* on one of these villages at Hutton, in Essex, for 470 children. The Greenwich Union has one at Sidcup, which cost 172,000*l.*, or 290*l.* per bed. The Shirley Village Home of the Bermondsey Union involved an outlay for buildings of 189,000*l.*, for 560 children, or 320*l.* per head; and the weekly cost at first was 20*s.* 1*d.* per head. The Local Government Board did nothing to check the reckless extravagance shown in these instances, and in others that might be cited. In the least expensive places of the kind 13*s.* 1½*d.* per week is the cost for each

child—a sum far in excess of what thousands of struggling ratepayers are able to spend on the board, clothing, and education of their children. Apart from the intellectual, moral, and social conditions that are lacking where masses of children are congregated, whether in town schools or in country colonies, the outlay on building and maintenance cannot be justified. The average cost for boarding-out is from 14*l.* to 16*l.* per annum; in scattered homes it is from 25*l.* to 30*l.*, in barrack schools 30*l.* to 40*l.*, and in village communities from 35*l.* to 52*l.*

The large Poor Law Unions of Croydon, Kingston and Richmond have had an experience of what Charles Dickens described in his scathing satire of the Circumlocution Office. On December 27, 1904, after two or three years of preliminary negotiations, an Order was issued constituting those Unions as a Joint Committee for dealing with epileptic and feeble-minded pauper cases within their respective areas. It was hoped that speedy and suitable provision would be made for the treatment of several hundreds of this unfortunate class in a farm colony, under scientific and kindly supervision. Enquiries were at once instituted, and, after the inspection of various sites, one was selected near Dorking, as being in every way eligible, at a moderate price. The buildings proposed to be erected were simple and inexpensive, yet adequate for the purpose. A provisional contract was entered into, and was submitted to the Local Government Board for approval, in February 1906. A long and tedious correspondence ensued. Frivolous objections and difficulties were raised, which explanations and interviews failed to remove. One pretext for delay was that a Royal Commission was then enquiring into the whole question of the care and control of the Feeble-minded, and that it would be well to wait for its Report. That document did not appear until July 1908, or more than two years after the selection and submission of the proposed site. All this time nothing could be done, beyond futile attempts to move the officials by inducing Members of Parliament to interrogate Mr Burns. The issue of the Report of the Royal Commission made no change in the attitude of stolid resistance. The next advice was to await the results of an enquiry into the whole subject of the Poor Laws, then being conducted

by another Royal Commission. Its Report appeared in February 1909; but leave continued to be withheld from the Joint Committee to carry into effect the Order of 1904, which they were anxious and prepared to do. At length, the original Order was rescinded and the Joint Board dissolved, on the pretext that the duty assigned had not been performed, thus adding insult to injury.

The narrative seems to be childish and absurd to the last degree, but it is grimly true, as the three Unions know to their cost. A change has come over the official mind since the introduction by the Home Secretary of the Mental Deficiency Bill, which follows substantially the lines laid down in the Report of the Royal Commission. For some months past the Local Government Board has been authorising and encouraging the combination of Unions to provide for the care of the numerous pauper cases of feeble-minded and defective persons—of whom there are 31,824, according to a parliamentary return of July last—under the powers long possessed by Guardians, but which, for some inscrutable reasons, they were not until lately permitted to exercise. Is this sudden change of front attributable to the apprehensions of one set of officials that those of another department may win the honours of success?

Here is another typical case in which enormous expense was involved and local control repudiated. County Councils and County Borough Councils have been required of late to provide for pauper lunatics, with power to take charge of others for payment. Palatial buildings have been erected in different parts of the country, and they are wholly managed by Committees of the Councils. One of these structures, at Warlingham in Surrey, was built ten years ago and is managed by the Croydon Borough Council. The original estimate for land and buildings was 80,000*l.*, but the actual disbursements amounted to 230,000*l.*, or 500*l.* a bed. The accommodation was for 450 inmates; and additions have since been made. The responsibility for the extravagant outlay rests with the Local Government Board and the Lunacy Commissioners, but principally with the latter, for they insisted on alterations and additions, and on the place being fitted up and adorned at an expense wholly needless. The Local Government Board issued an edict

for the removal of between five and six hundred lunatics chargeable to the Croydon Union—the number now exceeds seven hundred—and for placing at Warlingham such as belonged to Croydon parish. Those from Penge, in common with various Unions in Kent, were to be sent to Barming Heath, near Maidstone; and those from the rural parishes of the Union and other Unions in Surrey to a new asylum built at Netherne by the Surrey County Council. The cost of the transfer from Cane Hill and Brookwood exceeded 700*l.* The charge per head per week at Warlingham was 16*s.* 11*d.* for a considerable time, but it has been gradually reduced, and is now 12*s.* 10*d.* At Netherne it is 10*s.* 6*d.*, and at Barming Heath 10*s.* 7½*d.* The noteworthy fact is that all these arrangements have been prescribed by the London central officials without the opinion or concurrence of the Guardians being sought. They were not consulted as to the location of the buildings, or as to their arrangements and cost. They have no voice in the management, although nine-tenths of the inmates are supported out of the poor rates. Twice a year they make formal visits of inspection, but their chief function is to defray the larger part of a heavy expense over which they are not permitted to exercise any control. To state the facts, which are undeniable, and which have their counterparts in other districts, is to pronounce their condemnation. It is only one instance of the involved, cumbrous, and wasteful system, or lack of system, under which England suffers. Yet its advocates and apologists deem it to be the embodiment of human wisdom, and absolutely perfect.

The tedious and expensive procedure of Royal Commissions, of Select Committees, and of Departmental Committees, seems to be devised for the express purpose of delay and evasion, and in order to show 'How not to do it.' The elaborate enquiry into Housing and Town-Planning, for example, has resulted only in feeble little legislative bantlings about which much has been said and written but by which little has been accomplished. The model rules and the model plans for cottages are ridiculous and impracticable, both as regards convenience and expense. Regulations as to materials and structural arrangements, however necessary in a town area, are preposterous in rural districts. Under those regulations,

as administered by medical officers of health and sanitary inspectors whose powers are practically unlimited, cottages cannot be built to yield even one per cent. on the outlay. Local rates on each range from 1s. 6d. to 2s. 6d. per week. The demand now is that the money required for building at least 200,000 cottages, at a cost (including land) of from forty to fifty millions, shall be provided at the public expense, the State becoming a universal and beneficent landlord. The latest Housing scheme has been entrusted to the President of the Board of Agriculture—a somewhat incongruous procedure, seeing that it naturally belongs to the Local Government Board in concert with County Councils. To every reform in recent years in connexion with local administration permanent officialism at headquarters has offered dogged opposition, or has maintained unsympathetic silence, until forced to yield to public opinion or under pressure from such bodies as the Association of Poor Law Unions and the Central Conference of Guardians.

A similar criticism applies to another momentous subject. The protracted sittings of the Royal Commission on the Poor Laws, costing, so far as is known, more than 100,000*l.*, have resulted in the issue of numerous portly Blue Books, which probably not five hundred persons have read. The recommendations of both the Majority and the Minority Reports are a mere matter of record. Nothing has been attempted, or seems likely to be attempted, to carry them into effect by legislative measures. Indeed Mr John Burns has avowed his opinion that all needed changes can be secured by Administrative Orders. This is the apotheosis of officialism. Two or three small ventures have been made, but the country has waited and hoped in vain for a broad and comprehensive scheme, resembling that of 1834. What the Board has done in some few instances pales into insignificance beside what it has failed to accomplish, with ample means at command, or what it has prevented others from doing. The Order for the Regulation of Relief (1911) only codified existing rules and introduced the 'case-paper' system. An accompanying circular revived the almost forgotten fallacy—repeatedly exploded—that outdoor relief encourages sweating. It solemnly admonished Guardians to be careful how they gave relief

to women. The operation of Old Age Pensions and of the Insurance Act has been retarded, and to a certain extent defeated, especially in numerous cases where recourse is made to Union Infirmaries. The law explicitly declares that medical relief is not to be regarded as parochial relief, and that no civic disqualification ensues. The official mind, with its usual habit of defining and applying the law, presumes to place the opposite interpretation on all such cases, under the pretext that the value of the benefit received exceeds 31*l.* 10*s.* per annum, and therefore disqualifies. Every month hundreds of Old Age Pensioners are thus treated, and payments to them are stopped while they are in Infirmaries. They lose the money, and Guardians are not permitted to receive it towards the cost of maintenance. The amount thus saved to the Exchequer at the expense of the rates during a year must be very large. In cases where recipients under the Insurance Act are taken into Poor Law Infirmaries, especially in the maternity wards, no portion of the benefits accrues to the Guardians without the express consent of the recipients, which is rarely obtained.

The latest exemplification of the policy of the Local Government Board is the issue on January 1, 1914, of two Administrative Orders bearing on the internal management and the dietary in workhouses, with the classification of inmates, and the removal of children over three years of age. Provision is to be made within twelve months for an efficient nursing staff, which of course means much larger cost. Increased care is to be bestowed on Infirmaries, especially in maternity cases. These include every year several thousand single women, many of whom return again and again, at an expense to the ratepayers of from five to twenty pounds. Highly paid medical men and trained midwives and nurses, with every modern appliance and convenience, are provided, to an extent which vast numbers of those who have to find the money are unable to afford for themselves and their families. In regulating these matters the opinions, the wishes, and the experience of Guardians and their responsible officers were not sought. The two Administrative Orders are the outcome of a report and recommendations of a Departmental Committee; and it is

intimated that its members are occupied in further enquiries, which will result in the issue of additional Orders. It is manifest that permanent officialism captured Mr John Burns, who manifested a dogged determination to stifle any discussion of Poor Law subjects in Parliament. It is to be hoped that in his new office he will show less rigidity. As things are, every reform is made in piecemeal fashion, at the pleasure of a department, and in accordance with its unbending traditions. The interests of the public, the welfare of the poor, the growing and galling burden of rates, and the time and labour gratuitously bestowed by 643 Boards of Guardians are subordinated to the rigid system of Whitehall.

Three other notable instances, out of many, may be given, in order to complete the indictment of the modern bureaucratic system. Two recent grants of 200,000*l.* each, for apportionment by the Local Government Board among Distress Committees, follow the dangerous precedent set by the Treasury years ago, of making arbitrary grants-in-aid of local rates, or for the benefit of particular districts, classes, or trades. The example has been imitated by the Board of Agriculture, and, more frequently, by the Education Department. The doles to Distress Committees show the futility of all attempts to make work that is not needed and cannot become productive, and to provide at the public charge employment for the unemployable. The London Distress Committee, with its gigantic failure of a colony at Hollesley, is only an extreme form of the evils resulting from this absurd policy. Another instance of ineptitude in the existing bureaucratic system is the present speed-limit of twenty miles an hour for motor vehicles, which is causing so much trouble and danger to the public and the sacrifice of hundreds of lives every year. The origin of the limit is found in a mere Order of the Local Government Board, without whose express leave—which is rarely granted—no deviation can be made by local authorities. Why do not magistrates deal with these numerous cases on the old and safe legal ground of furious driving to the common danger, instead of regarding the edict of some unknown official, who is sheltered under the ægis of a mythical Board? A third instance is furnished by

the County Councils Act of 1888, which is a flagrant specimen of the custom of inserting clauses in recent Statutes with the object of protecting, confirming, or extending the powers of these phantom Boards. It bristles with official checks and restrictions. Provisional Orders can be issued, transferring powers under local Acts or from other authorities. By a single stroke of the pen many additional functions were imposed upon County Councils, to their great bewilderment. Some seventy times in all, such phrases occur in the Act as 'with the consent of the Local Government Board,' 'the leave of the Local Government Board being first obtained,' 'in such manner as the Local Government Board shall direct,' 'as prescribed by the Local Government Board.' On the other hand, official consent is required at every turn. Protests were raised in Parliament and in the Press at the time of the passing of the measure, but it was brought on suddenly, and adequate time for discussion was not secured. The Associations of County Councils and of Municipal Corporations have sought to obtain modifications and concessions, but without success, except in a few minor details. The practice of foisting into Acts of Parliament clauses to maintain and extend official supervision, and conferring not only administrative, but legislative and interpretative powers, has been adopted to a dangerous extent. No wonder that the Local Government Board has a parliamentary agent to protect its usurped authority.

The wide subject of bureaucratic government is not exhausted, but the specific instances presented above, and the criticisms offered, must suffice. The prevalent system, exhibited in varying degrees in nearly every public department, is the accretion of many years. It has been widened and strengthened with every opportunity, aided by the congested state of parliamentary business, by the ignorance or the indifference of the public, or by its inability to cope with a growing danger. When Sir Charles Dilke was President of the Local Government Board in 1883, he brought in a Bill to decentralise the office, and to transfer many of its powers to local bodies, but the measure was crowded out. He was one of the few Cabinet Ministers in recent years who possessed the capacity and the courage to deal with

such admitted and glaring evils. They have increased and been accentuated since that time. New authorities recently constituted, such as the Port of London Authority, the Water Board, the Public Trustee, the Insurance Commissioners, and the Labour Bureau, have made large additions to the Civil Service, at great cost, and have extended the sway of officialism. The less there is of central government in London, and the more local affairs are conducted in the light of day by qualified persons duly chosen by the ratepayers and responsible to them, the better will it be for the country.

Nor does the evil stop here. The multiplication of officials opens up a grave political danger. The 16,000 panel doctors are to a large extent State officers. The office of the Public Trustee began in 1908 with a staff of five clerks. There are now 310, and it is proposed to open branch offices in large provincial towns. Projects of what passes under the convenient euphemism of 'social legislation' will assuredly increase the number of officials. A solidarity of interests exists among them. They have their own organs in the Press, and their own trade unions, imperial, departmental, and local, for the protection of their supposed rights and privileges, especially for extorting more pay, larger pensions, shorter hours and longer holidays. Irrespective of other considerations of a commercial or an economic character, the illegitimate use of the leverage of votes, whether Imperial or municipal, is a valid reason for resisting demands for the nationalisation of land and mines, of railways and of traffic generally, or for taking over water, gas, and electric undertakings, or for control by the State of the means of production and distribution, about which social sciolists discourse so fluently and dogmatically. It is appalling to contemplate the possibility of several millions of men and women receiving salaries and wages from the Exchequer or from the rates, and using electoral influence for personal benefit.

Art. 4.—THE BEGINNINGS OF THE EAST INDIA COMPANY.

1. *The English Factories in India: a Calendar of documents in the India Office, etc.*, 1618–1645. By William Foster. Nine vols. Oxford: Clarendon Press, 1906–1913.
2. *A Calendar of the Court Minutes, Etc., of the East India Company*, 1635–1654. By Miss E. B. Sainsbury. Four vols. Oxford: Clarendon Press, 1907–1914.
3. *A Geographical Account of Countries round the Bay of Bengal*. By Thomas Bowrey. Edited by Sir Richard Temple. London: Hakluyt Society, 1909.
4. *New Account of East India and Persia*. By John Fryer. Edited by W. Crooke. Two vols. London: Hakluyt Society, 1909–1912.
5. *The Constitution and Finance of English, Scottish and Irish Joint-Stock Companies, to 1720*. By Dr W. R. Scott. Three vols. Cambridge: University Press, 1910–1912.
6. *A Pepys of Mogul India; being an abridged edition of the 'Storia do Mogor' of Niccolao Manucci*. Translated by W. Irvine. London: Murray, 1913.

And other works.

In a recent article * we endeavoured to sketch the early and somewhat obscure progress of the East India Company towards political power, before the acquisition of Bengal had suddenly manifested the extraordinary destiny of England in the East. But the political progress of the Company can hardly be profitably studied without reference to the economic causes which created and maintained the Company; and in the following pages we propose to complete our review of early Anglo-Indian history by a brief examination of matters from an economic standpoint.

The fullest information regarding the East India Company is naturally to be found in the excellent calendars which are now being prepared by Mr William Foster and Miss Ethel Sainsbury.† Especially during the

* See 'Quarterly Review,' No. 437, Oct. 1913, 'British History before Plassey.'

† Besides these, there are of course the Public Record Office Calendars, Colonial—East Indies; and certain records published in *extenso*,—Stevens'

first century of the East India Company's existence, their records combine in a remarkable degree the importance of State documents with the human interest of private papers, and form a series of manuscripts that can hardly be rivalled among the official records of the modern world for importance of subject and variety of content. These India Office Calendars are fuller and more abundant in quotation than the somewhat arid abstracts of the Public Record Office; and the change is entirely for the better. The student could hardly desire a more satisfactory guide to the India Office records; and, as the series grows to completion, he will be able, with a month's reading and a few days among the manuscripts, to form surer conclusions than if he had spent laborious years in the record-room without such a guide.

The Hakluyt Society also has recently provided us with two valuable documents—'The Travels of Thomas Bowrey,' edited by Sir R. Temple, and Fryer's 'New Account,' edited by Mr W. Crooke. The first is certainly the more important, for it previously existed only in manuscript, whereas the second has always been well-known in the 17th-century folio. But, though Fryer is not new, he has long stood in need of an editor and annotator; so both works merit attention. In many ways also the two works are complementary. Save for a brief visit to Masulipatam and Fort St George, Fryer spent all his time in Western India; while Bowrey lived on the coast of Coromandel and was a frequent visitor to all the Eastern ports. Fryer was a man of learning, a doctor of medicine and a member of the Royal Society; Bowrey was an unlettered seaman, a skipper of country ships that plied into the Bay of Bengal and the Malay Archipelago. Thus differing in position, training and experience, these authors, taken together, give a tolerably complete description of the English in India in the third quarter of the 17th century.

While scholars are thus liberally endowing us with new knowledge, it is exceedingly gratifying to note signs

'Dawn of British Trade to the East Indies' (Stevens, 1886); Birdwood & Foster's 'First Letter Book of the East India Company' (Quaritch, 1893); and the 'Letters received by the East India Company from its Servants in the East,' 6 volumes (Sampson Low, 1896-1902).

of a renewed interest in the history of India among the general public. For example, that most important work, Manucci's '*Storia do Mogor*,' has achieved the honour of a popular edition. It is familiar to every student for the vivacity and charm with which it gives us a first-hand account of the strange world into which our predecessors wandered. Miss M. L. Irvine has now prepared a condensed edition in one volume, from which all the excrescences of the original have been pruned away, while all the more important passages have been preserved. '*The Pepys of Mogul India*,' as she calls her author, has gained more than he has lost by the compression of his four volumes into one.*

Lastly we come to the great work of Dr Scott. No student of economic history in general or of Anglo-Indian history in particular can afford to neglect this remarkable study of the joint-stock company. Dr Scott's conclusions are very different from those of Adam Smith; and he shows ample reason for traversing the statements of the '*Wealth of Nations*.' For a period of over a century and a half before the South Sea catastrophe, the joint-stock system had done conspicuously good work for the country, as well as proving an advantageous method of private investment. The Muscovy Company had imported on a large scale the masts and cordage without which Elizabeth's fleets could not have put to sea. The '*Society of Mines Royal*' worked copper which another '*society*' converted into brass and bronze for ordnance. The buccaneering expeditions, including Drake's voyage round the world, were financed by joint-stock adventurers. Virginia and Massachusetts, the Bermudas and Hudson's Bay, were planted by joint-stock companies; while the African trade was at different periods opened up and developed by no less than six, one after the other. Dr Scott has dug deep into old records and forgotten pamphlets; he has recovered an astonishing number of facts, and has woven them together with great lucidity. But for our present purpose he has another remarkable

* The present writer has recently discovered a volume of the Mayor's Court records at Madras, which shows that Manucci was still alive in 1719, whereas it has been supposed that he died in 1717. In 1719, Manucci was, characteristically, suing a Mahomedan for his winnings at backgammon and for medicine supplied.

virtue. It has often happened that the East India Company has been studied in isolation, as though it had been a unique phenomenon—a process which necessarily produced misunderstandings. But Dr Scott shows us that Company surrounded by similar organisations that were endowed with similar privileges for the performance of similar functions; so that it assumes its true position as a natural and inevitable product of its age.

The East India trade, then, was conducted by a company with privileges similar to those enjoyed by the Muscovy or Virginia Company. If those who disobeyed the ordinances of the East India Company were liable to fines and imprisonment, so also were those who broke the rules of the Levant Company; and the Czar promised the Muscovy Company the use of his prisons and instruments of torture. Interloping vessels might be seized on the Guinea Coast as well as in the Indian seas. Powers of life and death were exercised not only by companies' servants at Bantam and Surat, but also by companies' servants at Jamestown and the Bermudas. If we look abroad, we see the same system at work, though in a more complete and logical form. The Dutch East India Company explicitly enjoyed legislative powers; its monopoly was more rigorously enforced than that of any English company; and the Governor-General with his Council at Batavia formed a supreme court of justice from which no appeal lay to any tribunal in the United Provinces. These extensive powers were bestowed, not by despotism in quest of affluence, but by the republican government of the States-General; not amidst an obscurantist or reactionary people, but amidst the great champions of liberty who in religious matters practised a toleration to be found nowhere else in Europe.

It was universally believed that remote foreign trade and colonial adventure could only be conducted by means of a privileged company empowered to coerce the refractory into obedience and to maintain permanent relations with sovereigns with whom the national power could not come into effective contact. And in fact there was no alternative. For various reasons, personal, political, and economic, national finances were too embarrassed throughout the 17th century for the State to undertake

any responsibilities which it could avoid. Charles II would not garrison even Tangier or Dunkirk; he made over St Helena and Bombay to the East India Company; would he have maintained Cape Coast Castle or Madras? Similarly the Royal Navy, which could hardly keep the English seas clear of Barbary pirates, and had much ado, even under Cromwell, to hold its own against the Dutch, was absolutely incapable of policing the remoter seas. When we remember how uneasily the Englishmen of that day bore the pressure of taxation, it ceases to be surprising that merchants were empowered to protect themselves by the grant of privileges which also permitted special profits.

Such was the justification for the establishment of trading bodies able to protect themselves against external attack. Equally cogent arguments demanded the power to maintain internal order. Both among the colonists and among the employees sent out by trading or colonial companies there was a disorderly element. Gallants were sent to Virginia to escape a worse destiny. 'If a man is good for nothing,' said an English proverb, 'send him to the East Indies.' The Dutch declared that their service was recruited with libertines, vagabonds and rogues. Those who have supposed that these and similar statements are to be understood literally are certainly wrong. There is ample evidence to show that a large number of men went abroad, not because they were more immoral, but because they were more adventurous, of stouter fibre and greater capacity than their fellows. But there was a residuum of brawlers and rufflers, who looked to find an enlarged Alsatia overseas, and who needed the sharp penalties and informal procedure of the law martial to keep them in order.

An open trade under the protection and justice of the State being impossible, the great problem was how the privileged companies should be organised. There were two alternative forms—the regulated company and the joint-stock company. The first in many ways resembled the medieval guild, the second the medieval *societas*. Under the first, each member traded on his own account within the regulations established by the company; a common fund was raised by entrance fees and a levy upon the members' trade; and admission

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was open to all who had served a suitable apprenticeship. Under the second, trade was collective; members did not, or at all events were not supposed to, trade separately; the company controlled all the funds, capital and profits; and admission was obtained by subscribing or purchasing stock. These two forms maintained a constant rivalry from the time of Elizabeth to the time of William III; but the joint-stock company proved to be decidedly the more efficient organisation. Operations could be larger and better combined; its command over the funds gave it much greater powers of action in an emergency; and it had much more control over the agents employed in the trade. These latter were a source of trouble to both kinds of company. The Joint-stock Muscovy Company underwent serious difficulties owing to their misconduct; but, Dr Scott tells us, these difficulties were not to be compared with what went on occasionally under the regulated Levant Company; and gradually the joint-stock companies learnt how to take advantage of their superior position.

In early times, privileged trading companies assumed the regulated form. The first joint-stock appears to have been that of the Muscovy Company, formed in 1553 under the cumbersome title of 'The Fellowship of English Merchants for the Discovery of New Trades.' The reasons for the adoption of a novel form are revealed in the name they adopted. A joint-stock had obvious advantages in so speculative a project; and after the company had established itself in Russia, the same form was retained because under the looser regulated system the indiscretion of a single trader might have imperilled the privileges granted by the Czar. The Levant Company, whose ships were in constant peril from Mediterranean pirates, was also organised for a while as a joint-stock.* Similar reasons demanded that the East India Company should be organised in the same way.†

* This point is one of Dr Scott's numerous discoveries.

† The East India Company has often been described as a regulated company for the first thirteen years of its existence. Ignorance of unpublished records may excuse earlier writers such as James Mill, but recent writers cannot plead that excuse. Even Sir William Hunter uses ambiguous language which suggests, if it does not positively contain, error. One of the earliest resolutions of the adventurers was that the India trade was

Many of the original subscribers were already familiar with this form of organisation. Some had been members of the Levant joint-stock, and others had speculated in the numerous buccaneering voyages that had been financed on the same basis.

But, though the East India Company traded as a joint-stock from its very inception, it was long before the advantages of uniting financial with its corporate continuity were perceived. Dr Scott justly observes that there were many companies under the single charter. Each of the separate voyages, under which the Company's earliest ventures were organised, was financially distinct from the rest. Even when that method was found inconvenient, stocks were established only for a term of years—the First Joint-Stock in 1613; the second in 1617; the third in 1632. Indeed, the idea of a permanent stock was not adopted till the reign of Charles II. Until 1662, dividends included the return of capital as well as the division of profits; so that, when the winding-up of a stock was imminent, the supply of funds depended on the success of a new subscription. This resulted in two grand defects. One was that it prohibited continuity of policy; the other that it entirely prevented the accumulation of reserves. The Dutch East India Company exhibited a much wiser financial policy. Its capital was not only much larger than that of the English Company but also permanent from the first;* so it ran no risk of a sudden lack of funds from inability to raise a new stock after paying off the old. Moreover, although its commerce appears to have been remarkably well managed, Dr Scott estimates that it paid away out of profits, between 1602 and 1617, 6 per cent. per annum less than the English Company. The difference is accounted for, not by less

too remote for anything but 'a joint and a vnyted stock' (Stevens' 'Dawn of Trade,' p. 8); and they never deviated from this resolve. Certain provisions, however, notably those regarding admission to the Company, resembled those of the regulated companies.

* It seems to have been expected on the establishment of the United Company that its capital would be returned every ten years and a new subscription raised; but this expectation was never realised. Van Brakel: 'De Hollandsche Handels-Compagnieën,' p. 50. The work just quoted contains a very valuable exposition of the economic aspects of the Dutch companies in the 17th century.

successful trade, but by the fact that the Dutch were expending considerable sums on fortifications and munitions of war, thus laying the foundations for a secure trade in the future. Financial policy thus goes far to account for the immense superiority which the Dutch enjoyed in the first half of the 17th century.

At the same time it is only fair to remember that the Dutch policy was not the undiluted result of economic wisdom. It might have been selected by intelligence, but it was undeniably forced on the Dutch by circumstances. The English Company was formed with a purely mercantile design. When the seamen of the first voyage enquired how prize-money was to be divided in the event of captures, the Committee answered that there was no design of making prizes, and that the expedition was sailing in search of trade alone. The Dutch Company, on the contrary, was organised for the purpose of attacking the national enemy. It was not only to procure the spices which could no longer be purchased in the Peninsular ports, but also to overthrow the Spanish predominance in the Eastern seas and deprive the Spanish Exchequer of the profits of the Eastern trade. The provision of defence and the building of fortresses were therefore matters of necessity. There were even complaints in the United Provinces that the Company was too intent on profit-making, and that it disregarded the military functions which it was intended to accomplish. It appears, then, that the diversion of a part of the Dutch profits to purposes of defence was not solely due to financial wisdom; and it is not unlikely that the Dutch directors regarded it as a troublesome burden. If so, the wisdom of the example was unconscious; in any case, its virtue was unperceived. The outcry raised by the English Company, when Fort St George was founded in 1639, well illustrates its attitude and the natural consequence of its system of finance.

It would, however, be wrong to ascribe the Company's system of terminable stocks wholly to financial ineptitude. In the first place, by opening new subscriptions at stated intervals to the general public, it obviated the principal contemporary objection to its monopoly. There were also other reasons, which made the wisdom

of giving hostages to the future very uncertain. Under the first two Stuarts, the Company was by no means sure that its privileges would be maintained. So early as 1604 James I licensed Sir Edward Michelborne to trade to China and elsewhere in the East; and, like other interlopers, Michelborne proved more of a pirate than a trader. It was said that his misdeeds made the English name abhorred, and that, should such another appear in Eastern waters, 'our estate here would be very dangerous.' Michelborne fortunately died without making a second expedition. But that did not end the danger, nor did even James's grant of a charter in 1609; for in 1617 a Scottish East India Company was constituted with the right to trade within the limits of the English Company's charter; and the principal mover, Sir James Cunningham, had to be bought out. Under Charles I matters were even more unsettled. In 1635 Endymion Porter and Thomas Kynaston sent out a piratical expedition which led to the imprisonment of Methwold, President at Surat, until heavy compensation had been paid. Almost immediately afterwards Courten's Association was formed, also under Royal patronage; and this, to say nothing of trade rivalry, involved the Company in troubles at Masulipatam, and afterwards caused heavy loss by circulating base coin in the Indies. Such incidents as these, combined with the political troubles and uncertainty of the times, go far to explain the Company's unwillingness to commit itself far ahead. But the accession of Charles II opened a new era of mercantile prosperity and Royal encouragement. Sir William Hunter has expatiated on the numerous charters and extensive privileges granted to the East India Company between 1660 and 1685; but it enjoyed no monopoly of Royal benevolence. The Hudson Bay Company, the Royal African Company, the Royal Fishery Company, all benefited in the same way; and Charles II, wiser than his father, showed that companies would be allowed to enjoy their privileges. Hence the inclination of the companies to adopt longer views and a more permanent policy. It is from that period that the greatness of the East India Company may be said to date.

Although in earlier years the Crown was the most formidable, it was not the only enemy. Throughout the

period there was a stream of criticism which swelled into a torrent at each period of prosperity. Some have seen in the attacks which were delivered on the system of monopoly an intelligent anticipation of the doctrines of the 19th century; but this view is untenable. Monopoly held in the commercial world a position not unlike that occupied by persecution in religion. The evils of both were much more manifest to those who suffered, or thought they suffered, from them than they were to people in general. The eternal principles of liberty, in commerce as in religion, were apprehended only in adverse circumstances. The persecuted sighed for a general toleration just so long as they were liable to rack and thumbscrew; and merchants advocated an open trade only till they saw an opportunity of establishing themselves in the enjoyment of a monopoly. Dr Scott furnishes more than one illustration of this interesting psychological phenomenon. In 1604 Sir Edwin Sandys declared that it was 'against the natural right and liberty of the subjects of England' to restrain merchandise into the hands of a few; but a few years later, when this enthusiast of natural rights had acquired control of the Virginia and Somers Islands Companies, he was negotiating a stringent monopoly of tobacco. When the Levant Company attacked the East India Company, it was supported in spite of its privileges by free-trade interlopers; and the regulated companies, which professed to be the natural homes of liberty as against the monopoly of a joint-stock, themselves became close corporations to which none but the 'legitimate merchant' was admitted. The great struggle at the close of the century was, however, a more straightforward affair. The new company which then was formed attacked not the privileges but the composition of the old; and the real object was to increase the Company's stock and admit certain persons to the benefits enjoyed by stock-holders. This was indeed the net result of the establishment of the United Company in 1708.

Meanwhile, in the East, the Company had after a series of experiments learnt how to organise its trade. From the first it had resolved to establish factories, and had directed that some of 'the youngest sort of factors' should be left in them to learn the native languages.

But the problem of organisation in the East was for some time unsolved. To begin with, it was difficult to get orders which were issued in Europe executed in India. This was due neither to special incompetence at home nor to special unruliness abroad, but to the inevitable consequences of great distance and unforeseen conditions, combined with an occasional divergence between the Company's and its servants' interest. When the latter arose, no orders could be explicit enough to prevent 'witty self-ended men' from wresting them to a convenient meaning, as the Company was ruefully to confess. The Dutch had to meet exactly the same difficulty; and they fared no better than the English. At Amsterdam 'an order of the Indies' meant an order which was completely ignored.

It is to be observed that the organisation in the Indies depended largely on the Company's financial organisation. During the period of separate voyages (1600-1613) the factories were temporary and unsettled. Why should the factors of one voyage exert themselves to facilitate the profits of the next? Indeed the period of separate voyages is aptly so-called. Sustained and continuous trade was absent. A fleet sailed under a 'general'; on its arrival in the Indies it scattered to seek goods from the various ports; ships generally had to wait some while to secure their lading, and goods had generally to be bought on the spur of the moment. It is on the whole an astonishing proof of the immense profits to be made in the Indian trade that these voyages were as successful as they were. Moreover, the different 'voyages' were as hostile to each other as had been the Hollanders' and Zealanders' companies at the beginning of the Dutch trade. Whenever ships of different expeditions met in the same harbour, there was sharp rivalry, of which the native traders took the fullest advantage. The value of broad cloth or sword-blades would sink to nothing; the prices of nutmegs or pepper would rise exorbitantly. In 1615 goods belonging to the Sixth Voyage, fitted out in 1610, were still rotting at Bantam. In 1612 Saris was peaceably trading in the Red Sea when Sir Henry Middleton arrived to take vengeance for his imprisonment at Mokha; Saris was obliged to leave his trade and join Middleton in what can hardly be called

anything but piracy. The General of the Sixth Voyage was accused of being the bitterest enemy of the Eighth; and on one occasion at least, English shipping reached a port to find that a factor of some previous voyage had engrossed the very commodities which they desired and which they had to buy of him or go without.*

Other evils arose from jealousy between different branches of the Company's servants. At first the 'general' and the captains had much more than the control of marine matters; and they were frequently accused of riding rough-shod over the factors who accompanied them. Even in Sir W. Petty's time, it was thought that a seaman should be at once navigator, merchant and soldier. The Company expected its 'generals' to combine the characters of the sailor, the merchant and 'the man of fashion and good repute.' Such a trebling of parts was by no means foreign to the age, and was possible enough in times when specialisation was rare and imperfect. Soldier and sailor often changed duties; and the Company's factors bought and sold more kinds of goods than half-a-dozen merchants nowadays would venture to deal in on their own experience. None the less the professed merchant felt humiliated at having to take his orders from a ship's master, and was often disinclined to obey. One writes angrily that he has been put in the bilboes; another that the captain has hired a separate house for himself and his trumpeters to show his greatness; a third that the captain has governed 'at sea with much brawling and little justice, and ashore with much greatness without skill.' In a contemporary abstract of a letter that has perished, we read that Captain Harris 'revileth his merchant and threateneth him'; and even worthy Captain Downton, who beat the Portuguese from Surat in 1615, predicted the ruin of the Company's affairs when he found himself saddled with a council of factors and shorn of independent authority.

This power, accorded in the Company's first period to the commanders of the shipping, was a natural consequence of the organisation in separate voyages. But

* The early voyages of the Dutch companies before their union were similarly independent and competed one against the other, even when fitted out by the same company. Van Brakel, *op. cit.* p. 14.

when a more durable capital was established, and when regular factories arose to secure a more permanent and continuous trade, it was equally natural that the factors' authority should rise superior to the captains'. At first matters tended to the opposite extreme. We even find the English factors imitating what became a standing rule with the Dutch, and taking command of the ship on which they returned home. But the English Company was prudent enough not to tolerate such an assumption of authority; and President Wyldé, who sailed from Surat for Europe in 1631, was the last covenanted servant to do so.

About the year 1613 the organisation of the English factories began to refine itself. Their establishment was determined partly by commercial and partly by political conditions. There were four chief regions in which the Company desired to establish itself. The first comprised the islands of the Malay Archipelago, where were produced the spices—pepper, cloves, mace, and nutmegs—which formed the staple commodities of the early East Indian trade. Thither also came native shipping from China with silk, and from Surat and Masulipatam with piece-goods. From the European point of view, this formed the most important trade-centre in the East till commerce began to develop along lines somewhat different from those which the Portuguese had found and adopted. It was in this region that the English first traded, and it was at Bantam on the island of Java that they established their earliest factory. Secondly, there was the Coromandel Coast, where were produced many different kinds of cotton cloth in eager demand in the spice islands. This manufacture was carried on all down the coast; Pondichery was well known for its cloth long before François Martin settled there in 1674; but the most important centre was that which lay near the mouth of the Kistna. There were numerous weaving towns producing chintz and other varieties of cloth, which were commonly marketed, as Bowrey tells us, at Masulipatam. So here too the English established themselves, as well as at the town of Petapoli (1611). Thirdly, there was Surat. Besides the trade to the spice islands, this city carried on an important trade with the Red Sea and the Persian Gulf; and it was also a collecting

centre not only for the fabrics of Broach and Baroda, but also for Sarkhej and Biana indigo, for saltpetre from Agra, and pepper from Malabar. Though the English had visited the place earlier, Thomas Aldworthe permanently founded the factory, after great opposition from Captain Best, in 1612. Fourthly, there was the Far East. China silks could be bought at Bantam, but it was thought that they might be obtained on better terms nearer their place of origin, and Captain Saris accordingly founded a factory at Hirado in Japan in 1613.

Thus far commercial considerations had been predominant; but about this time political considerations began to cut across the tendencies produced by trade, which would have established the centre of English commerce somewhere in the Malay Archipelago. Like ourselves, the Dutch already had established themselves there; unlike ourselves, however, they came prepared for war, and did not propose to drive out the Portuguese in order to open the spice trade for the English as well as themselves. Hence arose a trade-rivalry, deepening into armed conflict with the Dutch. Such was the situation in the trade-zone of which Bantam may be regarded as the central market. At Surat it was somewhat similar; there also was an armed enemy, resolved to dispute the English claim to entrance; but in this case the enemy was the Portuguese. Unless the English were prepared to encounter both nations at once, they had to choose between fighting the Dutch in the Malay Archipelago and the Portuguese in the Arabian Sea. In 1618 Roe with his usual insight discerned the great difference between the two enemies. Of the Dutch he wrote, 'You must speedily look to this maggot; else we talk of the Portuguese, but these [the Dutch] will eat a worm in your sides.' Consciously or not, the English took the line of least resistance. Best's and Downton's actions with the Portuguese off Surat in 1612 and 1615 had shown that the Portuguese galleons and galleys could be beaten off even with far inferior forces. The Dutch ships, on the contrary, were well found, well manned and well handled. They were besides much stronger than the English in the Spice Islands. Hence a natural inclination to make Surat

the centre of English trade rather than Bantam. But this meant that the spices, for which the original adventurers had sailed, could no longer be the main investment of the English Company. The Surat factors sought to develop other branches of trade—cotton goods, saltpetre, and especially indigo. This again led to the establishment of inland factories—Broach, Ahmedabad, Agra, and so forth—where they could be provided at first hand. Roe criticised this policy as involving needless expense. According to him, native traders could be trusted to bring goods to Surat if they knew the English would buy them. But in this instance the factors knew better than Roe what they were about, for local factories permitted them to ship their goods in a fitter state for the English market; and, had the native traders been left to carry their merchandise to Surat, the Company's bales of cloth and indigo would have contained a very disadvantageous mixture of sortments.

The same general tendency is illustrated by the English establishment in Persia in 1618 and their withdrawal from Japan in 1623. In Japan they had hoped to obtain China silk, such as the Portuguese obtained at Macao, and silver, with which the Dutch managed to finance a great part of their Eastern trade. But the factory from the first had been a failure; hopes of trade to China, and of silver which would have diminished the export of bullion from England, had been entirely disappointed; and the weakening of English efforts in the Moluccas naturally led to the disappearance of the Japanese factory. An establishment in Persia, on the contrary, would contribute to expand the English trade at Surat. The Portuguese held the castle at Ormuz and took toll of the shipping from that city, Cambay and Tatta. But it was thought that Persia might offer a market for English woollens, which had met with disappointing sales at Surat—that was a great motive; and the certainty of Portuguese resistance did not count for much after we had beaten them away from Surat. So, quite on their own initiative, the English factors sent an expedition to Persia, justifying themselves to the Company by their hopes of selling broadcloth and obtaining silk at 5s. a pound. After some resolutely contested sea-fights, the Portuguese were besieged in

Ormuz by the united English and Persian forces; and with the fall of that fortress in 1622 English predominance in the Persian Gulf was secured.

But for the accomplishment of the English scheme—to establish themselves in India while the Dutch were establishing themselves in the Spice Islands—something more was needed than the overthrow of the Portuguese. It was necessary also to win over the Moghul powers; and before the President of Surat could attain the dignified position which he held in Fryer's time, a lengthy and troublesome contest had to be undergone. When Aldworthe founded the Surat factory in 1612, the Surat merchants were on the whole unfriendly. Admission of the English meant country shipping being plundered by the Portuguese, a fact which became plainer with succeeding years. The disorders and drunken brawls of the English sailors and even of the wilder factors rendered the English unpopular inhabitants. Some, like Roe's page who went about thrusting his hands into all the food he saw, seem to have taken a pleasure in offending native sentiment on every possible occasion. In addition to this, there was considerable trade rivalry between the English and Gujarati merchants in each branch of trade that they pursued together; so there were always people at the Governor's elbow ready to prefer complaints against the English on every favourable occasion. To these were added Portuguese intrigues, urging the expulsion of the English as the price of peace. The result was that in 1615, on the eve of Sir Thomas Roe's arrival as ambassador to the Great Moghul, the Governor of Surat had concluded an agreement with the Portuguese; and the expulsion of the English was only deferred until the approval of Jehangir had been obtained.

There were thus great difficulties lying in Roe's way, for he was sent to procure permanent privileges for the East India Company in Moghul India; nor had these difficulties been minimised by the conduct of the factors who had resided at Court before his arrival. They had submitted humbly to all demands of ceremonial; they had endured with obsequious patience all the insolence and delays of the Moghul lords and even the violence of their servants. But Roe enjoyed the advantages of an assured

position. He was moreover a man of keen insight and resolute character. Before his resolution to maintain the dignity of His Majesty's ambassador, the insolence of the omrahs and the demands of servile ceremonial vanished. The factors had been dazzled by the display of wealth at the Moghul Court; Roe with more discriminating eye perceived the lack of taste amid its lavishness, observed that it was 'rather patched than glorious,' and compared the Moghul to 'a lady that with her plate set on a cupboard her imbrodered slippers.' While his predecessors had bent their heads to the earth in approaching the Emperor, Roe refused more than the reverence with which he would have saluted his own sovereign. While they had accepted a lowly place in the circle of audience, his post was near the throne itself. While the Company's factors were disposed to 'indianise,' both in costume and mode of life, Roe went only in European apparel, took his meals at table instead of sitting on a carpet, and was attended abroad by a black-cassocked chaplain and 'waiters' in liveries of scarlet and green. Above all, while others had appeared mindful of private interests, Roe was that miracle in an oriental court, a man who could be neither bribed nor intimidated into silence. Despite these advantages, however, he soon found that anything resembling the capitulations enjoyed in the Turkish dominions could not be hoped for in Moghul India. 'There is no treaty,' he wrote to Sir Thomas Smith, Governor of the East India Company, 'where there is so much pride, nor no assurance where there is no faith.' However, Roe thought that the English might be sure of trade on terms as good as those the natives themselves enjoyed; and, although he was unable to negotiate a treaty, yet when he left India in 1619 the English were safely established at Surat, and there was no question of their expulsion.*

Nevertheless the Moghuls could not easily reconcile themselves to accord what the English considered fair treatment. Owing to the complaints of the native

* There are numerous interesting letters from Roe both in the 'Letters from the Company's Servants' and in 'The English Factories in India'; Roe's Journal with additional documents has been admirably edited for the Hakluyt Society by Mr William Foster (2 vols. 1899). Terry's 'Travels' (Terry was Roe's chaplain) were reprinted in the 18th century.

merchants, permission was refused to trade into the Red Sea, and great difficulties were made about the sale of coral imported by the Cape of Good Hope. English factors returning home late and perhaps uproariously were set upon by the Governor's peons. The Governor himself expected presents; and his corruption, the Surat Council wrote, could not be remedied 'but by some violent course.' In 1622 it was resolved to seize the Red Sea ships on their return and hold them until English wrongs had been redressed; but the factors at Ahmedabad and Burhanpur were delayed in coming down to Surat, and so the execution of the design had to be deferred. In the next year, 1623, circumstances were more favourable; and in September the shipping of Dabhol, Gogha, Diu and Surat was actually seized and carried into Swally Roads. Rastell, the English president, then entered into negotiations, threatening that, unless his demands were granted, the ships would be carried off and the Surat factory abandoned. For the moment the English had the upper hand and were promised most of what they asked. They were to have liberty of trade, even in Bengal; they were to have the house that they had long been seeking in vain for their factory; they might buy or build four 'frigates' every year; their goods were to be freed from land-tolls; and they were to compound for the Surat inward and outward customs at 40,000 mamudis (about 1840*l.*) a year. But it was not likely that terms thus exacted by a temporary advantage would be observed. As soon as the English ships had sailed, in January 1624, an Imperial *farmán* ordered the English factors to be seized and expelled. This, however, was not meant to be rigidly executed unless the English were obstinate. It was, like the precedent which they themselves had established, intended rather to provide a basis for negotiation. The English were presently released; and, after prolonged discussions, a new agreement was made. The composition for customs, the right of bearing arms in Surat, the right of punishing their native servants, were all surrendered; and the President agreed not to go on board ship without the Governor's permission. This agreement and the second presidency of Thomas Kerridge, which began in October 1624, immediately after the agreement had been made, mark an

epoch in the history of the English in Western India. From that time forward they cultivated good relations with the Governor and merchants of Surat. Soon we find the latter embarking their goods on English shipping; rivalry seems to have been largely replaced by partnership; and there are no more troubles with the native powers, save such as arose from the misdeeds of interlopers, until towards the close of the century the militant policy adopted by the Directors raised a new crop of troubles.

On the other coast also the Company's servants found themselves exposed to the exactions of rapacious officials. One of the earliest episodes at Masulipatam had been the kidnapping of the Governor's son in order to procure the payment of debts long overdue. But the Coromandel Coast was shared by the King of Golconda with a number of semi-independent Hindu rulers; and this permitted a development very different from that which was possible at Surat. The English headquarters was to be the garrisoned town of Madras, not a port under native control. That development and its consequences have been elsewhere described; but another movement, of a purely commercial nature, must be at least referred to—that is, the beginning of the English trade into Bengal. Already in 1620 factors had been sent across from Agra to Patna to experiment in the provision of silk. But Patna was not the chief silk centre; the experiment was a failure, for the silk proved to be ill-wound; and the most interesting things sent were 'two prattling birds called mynas.'* This one trial proved sufficient for Surat, but the Masulipatam factors were much more persistent. One ship was sent into the Bay of Bengal in 1631, a second in 1632; and Cartwright's expedition sailed in 1633. But it was some time before commercial success was secured. In 1638 there were loud complaints that the factors in the Bay had made no returns for the money which had been sent them; it was a mystery what they had done with it. But, when we remember how the factors who were sent thither were congratulated on

* This is the expedition mentioned by Wilson (Mill's 'India,' ed. 1840, i. 70) which Yule could not verify (Hedges' 'Diary,' iii, cxclv, cxcv. See 'The English Factories in India 1618-1621,' pp. xxii, 191, 197, etc.

their prospects of making a fortune, one is tempted to conjecture that the Company's capital was being employed in private trade. Such were the poor beginnings of what was to prove incomparably the richest, most important and most vexatious branch of the Company's commerce.

Many circumstances combine to show that trade in the East Indies, at the time when the Company intervened, was on a comparatively small scale, and that the appearance of European traders exercised a marked influence upon it. This appears the more remarkable, as the capital employed by both Dutch and English can hardly be deemed considerable. The capital of the Dutch Company was only a little more than half a million sterling; and Dr Scott estimates the capital annually employed by the English Company in its earlier years at about 200,000*l*. Even when the former had augmented its capital out of profits and the latter had raised larger and less transitory subscriptions, their funds were still such that it is astonishing they should have been able seriously to affect the commerce of so enormous an area as the East Indies. Besides, only a portion of this capital was available for trading purposes pure and simple. According to tables in Sir W. Hunter's 'History of British India,' the cost of shipping and victuals on the Company's separate voyages amounted to more than half the capital exported in money and goods; and, on the four voyages of the First Joint Stock (1613-16), ships and victuals cost 272,000*l*., while the money and goods amounted to less than 190,000*l*. Besides this, there was the expense of maintaining the factories in the East—an item which Roe seems to have thought unduly heavy. Mun calculated that a return of 3*l*. 10*s*. was needed for every 1*l*. sent out as cargo; and the Masulipatam factors in 1614 wrote to Surat that calicoes were not worth buying unless they would yield three for one. These estimates appear to indicate that out of the Company's scanty capital considerably more than half was employed in a manner which could not possibly have influenced the Indian markets.

Yet we have incontestable evidence of the disturbance which the advent of the Dutch and English produced. The Dutch historians tell us how Ten Haeff had to wait at Bantam eight months in order to secure a lading.

Another early Dutch admiral, Van Neck, found lading for one ship only. The English records tell a similar story. In 1616 an English factor writes that the Gujarati merchants in Sumatra felt our rivalry so much that they were trying to bribe the officials into hindering the English trade. In the same year, at Surat, merchants were noisily protesting against the English being allowed to import coral. In 1619 the same merchants were organising a boycott to prevent the English trading into the Red Sea. In 1622 the English were prohibited from purchasing any of the narrow cloths which were specially made at Broach for that trade. It appears, then, that the Indian merchants found English competition severe enough for them to endeavour to stop it by all means in their power; and they thus corroborate Sir Thomas Roe's remark that our competition had 'wounded all their trades.' Other evidence also indicates that the Indian markets were small and ill-organised. In 1617, when war had stopped the road from Goleonda to Burhanpur, the land remained glutted and the goods on all men's hands. In 1618 Prince Khurram's ship for the Red Sea had to be laden with tobacco because the English had bought up all the suitable cloth. In 1630 the weavers of Broach and Baroda threatened that they would deliver no more cloth unless the English promised to buy no more yarn; and in the year before they had been forbidden to buy any saltpetre at Agra until the king had been supplied with the stipulated quantity of gunpowder. The general complaint against the English was, not that they were poor customers, but that they bought too much and raised prices. It is clear that Indian trade must have been but a modest current if so slender an affluent as English capital could produce so much disturbance.

We have now briefly noted certain economic aspects of the Company's early history and attempted to indicate their principal significance, and we propose in conclusion to make a few remarks upon the Company's covenanted servants, on whom devolved the execution of their Honourable Masters' commands, and who merit a considerable share of whatever praise or blame is to be accorded to the Company's career.

The organisation of factory life naturally took the form already familiar in Europe. The East India Company's factory at Surat and the Merchant Adventurers' factory at Middelburg were both modelled upon the same collegiate pattern. There was the same common table; there were similar regulations designed to secure morality of life. The actual details—the prohibition of dice and lansquenet, the fines for swearing and absence from daily prayers, for quarrelling and obscenity—have often been described and need not be repeated here. It is sufficient to point out that, however odd or inquisitorial they may appear nowadays, they were not abnormal, or even peculiar to the Indian factories. They merely indicate the general responsibility which was universally felt by the master for his servants' moral and material well-being, and which, in words at least, has survived to the present day in the apprentice's indentures.

All things considered, the Company seems to have been a kind and indulgent master. Some writers have appeared to think that all that has been written about the absurdly small salaries enjoyed by covenanted servants in the 18th century was equally true of the 17th. But that is erroneous. In the course of the 18th century the social organisation of the factory broke down; and till the time of Cornwallis the fact was hardly recognised by any revision of the scale of salaries. But throughout the greater part of the 17th century the factory was a social quite as much as an economic institution. In it the Company's servants lived and ate and drank, at the Company's expense. Fryer and Bowrey and a dozen more assure us that they lived sumptuously—'on the fat of the land,' Bowrey says. When, in the latter half of the 17th century, it became not unusual for factors to be married, the Company's liability for their support was shown by allowances for diet and house-rent, and by allotments of the wine that the Company sent out for consumption in the factory. At first, when only a part of the factors' salaries were paid in India, it was explicitly recognised that this was merely for the purchase of apparel; the rest was retained in the Company's hands, often invested in the Company's stock, but always held against possible claims for misconduct, as was the practice of the Dutch Company to the end of its days.

Of the requirements which we nowadays think of as having to be met out of a man's salary, all but one were thus met by the Company itself; and so the factors' nominal pay was a very different thing from their real wages. Nor does it appear that the pay assigned to the higher posts can fairly be called illiberal. For instance, in 1624 Kerridge came out as President of Surat on 400*l.* a year, with a promise of 300*l.* as a gratuity after four years' service; in 1644 Aaron Baker agreed to go out as President at Bantam on 300*l.* a year. Indeed, such rates appear generous when it is remembered that a Secretary of State received but 100*l.* from the Exchequer and the Chief Justice only 258*l.* The same liberality was practised by the Dutch. While the Governor-General at Batavia was receiving 600 florins a month, De Witt as Grand Pensionary was drawing for a long while only 250 florins. The English Company even endeavoured to make due allowance for the extraordinary risks which its servants ran in specially unhealthy places, though it may freely be confessed that its method of so doing was not above reproach. In its earlier years it covenanted with some of its factors who were destined for Bantam or 'the Southward' to pay the large sum of 1500*l.*, provided they returned alive after five years' service. This was a rate of pay equal or nearly equal to that drawn by the two Presidents; but it was scarcely fitting for the Company thus to bet upon its servants' expectation of life; and the system seems not to have been long pursued. It is probable that it was a contract of this sort which made a factor at Achin long to be in England with but 10*l.* in his purse, since, if he died, no friend would be the better for him; 'which I do not feignedly utter,' he adds, 'but with a sobbing heart.'

The risks to life of residence in India were, of course, in the 17th century something very different from those which the modern actuary values at about 1 per cent. The accounts of the Gombroon factory are delayed by the death of four accountants in three years; the great difficulty in establishing a factory in Bengal is that the factors cannot be kept alive. Fryer sums up the situation in his famous phrase, 'Yet for all this gallantry I reckon they walk but in charnel houses.' What, then, is the explanation of the fact that neither the Dutch nor the

English East India Company ever had any difficulty in finding men to accept their service? It is to be found in the sage advice which Lord Sandwich gave to Pepys. Places were valued, he said, not according to the salaries they carried but according to the opportunities they offered of making money. This was true both in the political and in the commercial worlds. Because the Secretary of State drew 100% a year out of the Exchequer, are we to suppose that that represented his total receipts? So also in India, the risks which the Company could hardly compensate were compensated by the opportunity of private trade. A post under the Company was not valued for the chance it offered of rising to the post of President with 300% a year, but for its opportunities of making a large private fortune.

It has been supposed that private trade might have been prevented had salaries been larger; and in support of this view it may be urged that Sir Thomas Roe strictly observed his covenant and abstained from trading. But Roe was a courtier. He would have felt degraded had he stooped to chaffer with banyans for gain. Not so the Company's servants. The probability is that, whatever salaries had been offered, private trade would have flourished just the same. It is a little ludicrous to expect men, traders by profession and remote from control, not to exercise their talents on their own behalf, when, in the first place, enormous profits were to be made and, in the second, they could salve their conscience with the thought that the Company was not really suffering. So long as money could be borrowed from Indian merchants on 'respondentia' at 25 per cent., no salary that the Company could in reason be expected to pay would outbalance the profits of a few successful voyages bringing in two or three for one.

But, it has been said, successful traders were few; fortunes were rare; the majority in the long run made but poor profits. That is true, but it is beside the point. Commerce in those days did not move with the precision that has been induced by the steamship and the telegraph. It contained a great element of adventure, of speculation, of luck. A ship might come into port when the market was bare and reap great profits; or it might be hindered by contrary winds, and find the market

overstocked and the cargo unsaleable. The trader's career in the East was a series of dramatic ups and downs. A run of luck would leave him a wealthy man; a bad voyage might eat up half his fortune. Beneath the poetic heightening of Shakespeare's 'Merchant of Venice' there lay a solid basis of common experience; and few of the Company's servants made large fortunes, not because normal profits were small, but because trade was desperately speculative and the life of Europeans in the East was short.

If in its financial organisation the Dutch Company offered the English a useful but unheeded lesson, so also the Dutch might with advantage have imitated the policy which the English finally adopted towards private trade. The Dutch directors were wholly uncompromising on this head. It was the great sin, a violation of the Company's universal monopoly. They aimed at engrossing not only the trade to and from the Indies but also the port-to-port trade in the Indies; and they clung to this ideal to the end with but a few trivial relaxations. But the effect of all their regulations was merely to make the private trade of their servants a secret matter; and the more illicit it became, the worse influence it had upon the characters of the Dutch in the East. The English showed themselves readier to learn by experience. At first, like the Dutch, they absolutely forbade private trade. Then they allowed it within certain limits. Then they again forbade it. But they found it impossible to carry their orders into effect. The quarrel between the Company's naval and mercantile services among other things brought to light curious and instructive examples of private trade. Now a captain refuses to take on board for the Company's account goods which he had been willing to buy and ship on his own; now the factors are accused of lending the sailors money and sharing in their gains. The Company does its best by threats and revilings, by stringent orders and royal proclamations, to prevent its growth. It orders wages to be paid as much as possible in kind, so as to reduce the supply of private funds, forgetting that native merchants could generally be found to advance money. Gradually, however, the Company came to see that it was attempting the impossible. It

would not be able to man its ships if it resolutely confiscated all the private trade that came aboard. It took to purchasing the goods it desired and charging freight on the rest. When a factor died in India leaving money which he could only have amassed in private trade, it entered into a composition with his relatives for a share. An understanding grew up, which afterwards hardened into a definite rule, that the factors might follow the port-to-port trade in India, but were not to meddle with the Company's European trade. Hence sprang up a traffic of some importance, giving employment to many English sailors besides Thomas Bowrey.

Nor was private trade the only matter in which the English Company compares favourably with the Dutch. The natural preoccupation of a trading company is profit; but, when it finds itself in such a position as circumstances forced upon the English and Dutch Companies, it does well if it avoids confining its attention so exclusively to profit as to neglect the administration of its servants abroad. The English Company at times was certainly guilty of regarding its dividends when other matters might well have been considered; but on the whole it erred less in this respect than did its great rival. For instance, it kept a keen eye upon its presidents, and never allowed succession to the Chair to become a matter of routine. The Dutch did the same in the first half of the 17th century. Indeed, Coen, Van Dieman and Maetsuycker were men of conspicuous abilities. But the corruption which grew and spread among the Dutch Directors weakened their hold upon the management and policy of their servants in the East; and, before long, accession to the highest posts became not much more than a matter of seniority. This defect was due to corruption in the Directorate; and that again was largely due to the peculiar constitution of the Company, in which, as James Mill would have said, the oligarchic elements far outweighed all the rest. It was responsible to no authority save the States-General, one of the feeblest bodies that have ever pretended to exercise sovereign rights. Moreover, there was nothing that corresponded to the English Courts of Proprietors which could always revise the Directors' action. A Dutch stock-holder could do nothing save sell

his stock; and his influence over the choice of Directors was negligible.

If, then, we compare the East India Company with similar contemporary organisations, it does not suffer much by the comparison; and modern research seems to be steadily disproving the thesis which James Mill set out to prove in his 'History of British India.' Indeed, it is high time that his version should be replaced by one more accurate. He accuses his predecessors of error, but he himself is untrustworthy. He complains of Bruce's 'alacrity of advocacy' while himself displaying a remarkable alacrity of abuse. According to him the Company could do nothing right. Its commerce was ill-managed; its Directors were corrupt; they needlessly multiplied factories to add to their patronage; the King's subjects were imprisoned and flogged to death though guiltless. Had there been no Company, he seems to say, our intercourse with the East would have been unstained by crime. That in one sense is perfectly true, for there would have been no intercourse either to stain with crime or to illuminate with heroism. Intercourse and crime alike would have fallen to the French or the Dutch. But, now that privileges and Company have vanished, and can no longer arouse the passions of self-interest, everyone should be willing to admit that it was conducted by men who were neither fools nor knaves, but exceedingly human, wise with the wisdom of their day but not endowed with the preternatural power of guiding their conduct according to the principles and theories of later generations. At times they were foolish and short-sighted; at times they professed and acted on principles which seem to us vicious and untrue; but we, who take infinitely more thought for the morrow than was possible in the 17th century, and yet often see our calculations falsified and our hopes disappointed, may surely recognise a conditional element in wisdom, and refrain from hastily condemning methods and theories which seemed justified in their own day, and for which a wider knowledge of contemporary conditions will not unfrequently provide a satisfactory defence.

H. DODWELL.

Art. 5.—THE MYSTERIES OF MITHRAS.

1. *Textes et monuments figurés relatifs aux mystères de Mithra*. Vol. I, Introduction; Vol. II, Texts, &c. By Franz Cumont. Brussels: Lamertin, 1896-1899.
 2. *Les mystères de Mithra*. By Franz Cumont. Third edition. Brussels: Lamertin, 1913.
 3. *Eine Mithrasliturgie*. By Albert Dieterich. Second edition, with additions, by Richard Wünsch. Leipzig and Berlin: Teubner, 1909.
 4. *The Religious Life of Ancient Rome*. By J. B. Carter. London: Constable, 1911.
- And other works.

IN days when Mithras was a less familiar figure than he has since become, Renan wrote that, 'if Christianity had been arrested in its growth by some mortal sickness, the world would have been Mithraist';* and, if this be thought a paradox, we may at least agree with Dieterich† that Mithraism was the most serious rival faced and conquered by Christianity.

M. Franz Cumont, to whom students of comparative religion in general and of Mithraism in particular owe an incalculable debt, was but twenty-eight years old when the first volume of his '*Textes et monuments figurés relatifs aux mystères de Mithra*'—a classic of research, if ever book deserved the name—was published in 1896, to be followed three years later by a second, described as an '*Introduction critique*,' but really an exhaustive historical study of the religion of Mithras. It needs but a glance at the collection of texts and monuments to show that we have here a signal example of the light which archæological discovery throws upon the dark places of our historical and literary record. The texts—Greek, Latin, and Oriental—in which Mithras is named, bulk small beside the six hundred inscriptions set up by his worshippers and the sculptured monuments found in his sanctuaries; and it is to these, in the main, that we owe our knowledge, not only of the geographical diffusion of Mithraism, but also of the symbols and trappings of the cult and—in many

* 'Marc-Aurèle,' p. 579.

† 'Kleine Schriften,' p. 271.

essential features—the doctrine which they enshrined. For those who cannot afford to study these monuments at first hand, M. Cumont's smaller book, the latest edition of which brings into account the fresh material discovered down to the year 1913, gives an excellent summary of the whole subject.


The cult of Mithras has a long history, but it was only in its latest phase that it acquired the profound significance which enabled it to aspire and almost attain to the dignity of a universal religion. That Mithras was worshipped in primitive times by the undivided Indo-Iranian people is clearly proved by the fact that his name appears in the Vedas as well as in the Avesta; and, although his rank in the Vedic pantheon was never pre-eminent, his visible manifestation in the heavenly light and his moral attributes as the upholder of truth and justice are the same in both religions. Moreover, the recently discovered cuneiform tablets of Boghaz-Keui have revealed the striking fact that in the fifteenth century B.C. Northern Mesopotamia was inhabited by an Indo-Iranian people, known to their neighbours as Mitanni, who were worshippers of Mithras together with other Vedic divinities such as Varuna and Indra. There is, however, no sign that the specific doctrines of the Iranian religion, associated with the name of Zoroaster, had taken shape at so early a date; and it was his connexion with this system of beliefs that enabled Mithras to enter upon his triumphant career.

This is not the place to examine the difficult problems connected with the origins of Zoroastrianism and the dating of its sacred books; it must suffice to say that by the time of the Achæmenid dynasty we find the dualistic system, in which Ahura the Wise takes the place of Varuna as the upholder of law and order both in the physical and in the moral world, established, with its priesthood and its liturgy, as the religion of the Persian State. The conception of the world-process as a struggle, in nature between Light and Darkness, in man between good and evil—strangely blended, in the early texts, with half-historical, half-symbolical allusions to the ancient strife between Iran and Turan, the Sown and the Wild—was of course the most profound and fruitful of the ideas of Zoroaster; and the world is not likely

to forget the fact. But the propagation of this idea, especially in the west, might have been slow and difficult without the driving force supplied by the political articles of the creed. Ahura-Mazda, it was believed, was not only the lawful ruler of the universe, but the protector of legitimate monarchy amongst men; and the token of his grace was the *Hvareno*, a kind of aureole or effulgence transmitted from the light invisible, which encircled the head of those kings who ruled by right divine. Now the dispenser of Ahura-Mazda's grace was none other than Mithras, the most glorious of his creatures and his victorious champion in the visible world—the borderland of light and darkness vainly attacked by the hosts of Ahriman. We do not know at what date this conception of the function of Mithras took shape; it may be significant that, whilst Ahura-Mazda alone appears in the inscriptions of Darius and Xerxes, Mithras is coupled with him in those of Artaxerxes Mnemon and his successors. At any rate, his eminent position may be inferred from the number of Persian names—of which the most familiar is Mithradates—which betoken the worship of Mithras by their bearers,* and the fact that he is the only Persian divinity named by contemporary Greek authors.†

The fall of the Empire of Darius, far from checking the progress of Mithras-worship, gave a fresh impulse to its diffusion; for amongst the mushroom dynasties which sprang from the ruins of Alexander's Empire the cult of a divinity whose favour could turn a military adventurer into a King 'by right divine' was naturally popular. Mithradates Eupator, the most formidable antagonist overcome by Rome in the last century of the Republic, was but one amongst many who bore that significant name; a visible token of the alliance between Mithras and the Asiatic dynasties remains to this day in the rock-sculptures of Nemrud-Dagh, where we see Antiochus I of Commagene, clad in Persian costume and wearing the tiara, clasping the right hand of Mithras, his protector and ally; and the researches of Rostowzew

* The word 'Hvareno' (v. *supra*) enters into the composition of such Persian names as that which the Greeks wrote 'Pharnabazus.'

† Herodotus (i, 131) makes the curious mistake of taking *Mitra* as a feminine 

(to which further allusion will be made) have shown that Mithraism was adopted as the official creed by the wealthy Scythian princes of the South-Russian steppe.

The westward advance of Mithraism brought it into immediate contact with the Greek world. Hellas itself, as will be seen in the sequel, Mithras was never destined to conquer; and the kingdoms whose rulers professed the creed were not, like those of Antioch or Pergamon, purely or at any rate mainly Hellenic, but were based on a compromise between eastern and western civilisation, in which the former element was the stronger. In the royal line of Commagene the names of Antiochus and Mithradates alternate; but although, in the inscription of Nemrud-Dagh, Antiochus I is careful to call himself *Φιλορωμαῖος καὶ Φιλέλλην*, and to declare that the images which he has set up are fashioned 'according to the ancient tradition handed down by Persians and Greeks, the blessed root whence my race is sprung,'* there can be small doubt that the Gods of his worship, although they bear the titles 'Zeus-Oromasdes,' 'Apollo-Mithras-Helios-Hermes' and 'Artagnos-Heracles-Ares,' are simply the Ahura-Mazda, Mithra, and Verethragna of the Zoroastrian religion, with nothing Greek about them but their borrowed titles. So too Mithradates the Great of Pontus, though he traced his lineage both to Alexander and Darius, and found it politically expedient to coquet with Hellenism, represents, as Mommsen pointed out, a national or rather racial reaction of Asiatics against Occidentals, which, at the time of his wars with Rome, was the moving force throughout the Near East—in Judæa and Egypt just as much as in Pontus or Cappadocia.

It was not for nothing, however, that an alliance, albeit a superficial one, had been sealed between Mithras and Apollo. Whatever, in the realm of religious ideas, Persia had to give, in the field of art at least she was the borrower. The familiar Mithraic sculptures, presently to be described in greater detail with reference to the ideas which they embody, tell their tale plainly to those versed in the history of Greek Art. Mithras

* Dittenberger ('*Orientalis Græci Inscriptiones*,' No. 383) points out that in this expression, so awkwardly introduced in the text, both races are to be understood as contributing to the pedigree.

the Bull-slayer—as may be seen even from a cursory inspection of the Heddernheim relief (pl. I), which is a commonplace piece of work—is the lineal descendant of the Sacrificing Victory which adorns the balustrade of the Temple of Athena Nike on the Acropolis of Athens. His costume bears but a remote resemblance to that of the Persians—its distinctive feature is simply the 'Phrygian cap,' which, by the convention of Hellenistic art, was assigned to all Orientals; and his features, in the finer examples which alone preserve some trace of the spirit of their original, are of what archæologists are wont to call the 'Alexandroid' type. Cumont has observed that the exaggerated pathos of the composition, the realism with which the death-agony of the victim is portrayed, and 'the strange mixture of exaltation and remorse which distorts the features of the slayer' and gives them a kind of morbid grace, all point to the school of Pergamon as that in which the *motif* was first conceived and embodied in marble.

The faith whose monuments Greek artists were thus summoned to adorn had already received a substantial infusion of elements foreign to the orthodox Zoroastrian creed. Beside the relief already described, most Mithrea possessed a statue in human form, but with a lion's head and encircled by a serpent's coils. The type is Oriental in conception, but Greek in execution; * and of its meaning there can be no doubt. It represents the *Zervan Akarana* (Infinite Time) of Zoroastrianism, identified by the Greeks with Kronos. We do not know precisely what part this divinity played in the mysteries of Mithras; but its importance clearly dates from the period in which Babylonian speculation set to work upon Persian ideas. The powers and elements of Nature retained their places in the creed of the later Magi; but they were overshadowed by the conception of Destiny, inspired by the study of the immemorial and changeless process of the heavenly bodies, whose movements served as the measure of unending Time.† From this conception

* The type is subject to individual variations which make it impossible to assign its creation to a definite date and school.

† In the system to which the name of Zervanism has been given, this conception was employed in the resolution of the problem of dualism. Ahura-Mazda and Ahriman were regarded as alike the offspring of Zervan.

was developed by steps which we can no longer trace, the science of astrology, which entered into a close alliance with the religion of Mithras, and shared in its triumphs throughout the Western world. The symbols of the planets and the constellations of the Zodiac by which their path was marked out, and their supposed influence on human affairs defined or modified, figure too prominently on Mithraic monuments to admit of doubt with regard to the close connexion between the two systems. Among the rock-sculptures of Antiochus I of Commagene at Nemrud-Dagh we find the horoscope of the king, who, as we have seen, was an ardent votary of Mithras; and we shall find further confirmation of the fact in studying the rites and liturgy of Mithraism.

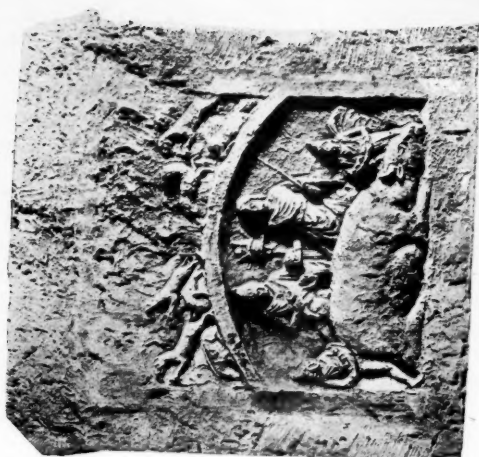
At this point we must pause to examine the religious and intellectual conditions of the world of Hellenism upon whose threshold the new creed had now set foot. We have travelled far since the days when Matthew Arnold wrote of a Paganism which was 'never sick or sorry'; the prattle of Gorgo and Praxinoë no longer passes for the typical expression of ancient religious sentiment. Prof. Gilbert Murray, borrowing from Prof. Bury a title for one of his lectures on the four stages of Greek religion—in some ways the most suggestive of the series—gives us as the keynote of our period 'The Failure of Nerve'; and there may be many who would regard the religious phenomena of the Græco-Roman world rather as the result of a rising tide of 'asthenic emotion' than as a 'necessary softening of human pride.'

Neither view does justice to the complexity of a world which, the better we come to know it, seems the more strangely modern. Not for all our admiration of the glorious centuries of Hellenic freedom and their imperishable achievement must we be blind to the fact that its brilliant societies were consumed by the white-heat of their narrow patriotism, and that its critical intellects scaled heaven only to find it empty. The 'city of Gods and men,' which took the place of the πόλις, was peopled by a motley crowd, diverse in race and speech and traditions; and this was true as well of its heavenly as of its earthly denizens. But man can neither live nor die to himself; detachment is a luxury which only the few can afford; and in the new world brought into

PLATE I.



(a) Obverse.



(b) Reverse.

THE SLAYING OF THE BULL.
(Relief found at Heddernheim.)

[To face page 106.]



being by the conquests of Alexander fresh ties were formed between man and man, and man and God.

This is not the place to trace the growth of a system of what has been called 'Hellenistic theology'—a body of doctrine gradually emerging from the clash of creeds and posited by all alike.* Stress has often been laid, and rightly, upon the important part played by Eastern ideas in the formation of the new beliefs. Harnack† has summed up, in a few pregnant paragraphs, the essential concepts borrowed from Oriental religion. Dualism lies at the root of them all. The transcendence of God and the inherence of evil in matter, the sharp antithesis of soul and body, the doctrine of the 'divine spark' which came down from heaven and must strive to return thither by the path of redemption through knowledge—these doctrines were the potent germs which, when fructified by Greek speculation, grew into a tree of mystical knowledge whose branches overspread the ancient world. But we must remember that it was not merely the religious emotions which craved satisfaction. We think of later antiquity as a time when the soul of man was stirred to its depths by a passionate longing to put off the soiled robe of the flesh; when the demand for an assurance indifferently called by the names of Faith and Knowledge‡ became ever more insistent; when allegory and symbolism made it possible for the adept to find in the manifold 'mysteries' which offered him the means of redemption, facets of a truth shot with many hues, staining that 'white radiance of eternity' which mortal eyes might not behold. But in the Greek world at least the problem of conduct, once posed, never ceased to press for its solution; and the problem of the universe continued to exercise the intellect of a race to which the mechanism of the heavens had always seemed, together with that of man himself, the proper study of mankind.

* The subject has been treated in this Review (July, 1910, p. 210 ff.) by Mr Edwyn Bevan.

† 'Expansion of Christianity,' Vol. i, pp. 31 seq.

‡ In the antithesis between 'salvation by faith' and 'salvation by knowledge' drawn out by Mr Carter in the work cited at the head of this article (which gives a popular account of the religious conditions of the period), 'Knowledge' seems something different from the 'Gnosis' of the sects.

We have lately come to recognise with increasing clearness the important part played by the Stoic philosophy in guiding ancient thought into its new channels and thereby contributing to a result which its professors were the last to foresee. The Stoic sage is familiar enough; the Stoic *savant* deserves to come by his own, for he not only played a leading part in that diffusion of more or less accurate knowledge which was a feature common to the Hellenistic age and our own, but also furnished mankind with a popular philosophy of Nature which was food for the religious imagination. It has often been pointed out that the founder of the school and many of its later leaders were of Semitic origin; but the fact, though suggestive, gives little more than a hint at the source of the Oriental element in Stoicism. We seem to be on firmer ground when we examine the cosmography of the later Stoics. It is now recognised that the 'Chaldaean' order of the seven planets, in which the Sun occupies the central place, was unknown to the Greeks until the 2nd century B.C., when it was adopted by the Stoic Diogenes of Babylon;* but it was reserved for a greater than Diogenes to popularise, by means of this astronomical speculation, a mystical theology which challenged and all but conquered the Christian faith. The learned mystics of all times have let their imagination run riot in visualising the universe and the divine order of its motions. Plato saw the spindle which turned for ever in the lap of Necessity, and the Sirens standing upon its revolving spheres and uttering the notes of the celestial harmony; Dante, endowed with an imagination richer, if less plastic, than that of Plato, found in the heavens a revelation, not of Necessity but of 'l'amor che muove 'l sole e l'altre stelle.'

But, for all their literary grace, the visions of Plato and Dante have never acquired the popularity which was enjoyed by the doctrine of Posidonius of Apamea, the master of Cicero, in the early centuries of our era. It was easy for the Stoic philosopher, who regarded the

* Sir T. Heath ('Aristarchus of Samos,' p. 107) seems to be right on this point. Others hold that the 'Chaldaean' order was adopted by Hypsicles, the author of the so-called Fourteenth Book of Euclid. Cf. Cumont, 'La Théologie Solaire,' p. 471.

divinity as a 'fiery and intelligent fluid'* pervading the universe, to see in the Sun the patent and visible manifestation of the Godhead. The central position in the order of the seven planets, vindicated for the Sun by the Babylonian astronomers, belonged to him of right as the King whose bodyguard they formed.† Cleanthes had already seen in the Sun the Ruling Power—τὸ ἡγεμονικόν—which was to the macrocosm what reason was in man, and described him in the language of mysticism as the torch-bearer in the pageant of the universe, leading the dance of the immortal stars; but he had also—strange as it may seem—set a ban upon Aristarchus of Samos, who by a brilliant guess had anticipated the heliocentric theory of Copernicus. Mystical orthodoxy stood committed to the geocentric hypothesis; and it was probably Posidonius who devised the ingenious explanation that the sun, though the focus of activity in the κόσμος, does not occupy the material centre of its frame any more than the heart in man or animal. The Dream of Scipio, which fills the place of a Platonic myth in the 'De Republica' of Cicero, echoes for us his master's conception of the beatific vision which awaits the departed soul as it ascends from heaven to heaven and beholds the motions of the several spheres; the treatise 'On the Universe,' which has found its way into the Aristotelian corpus, breathes something of the religious fervour which the doctrine inspired in the believer. But what took hold of the popular imagination was not so much the concept of an ordered universe as that of the microcosm in which its pattern was reproduced. The astrological poet Manilius, versifying the doctrine of Posidonius, expresses this conception in the words (iv, 893):

'quid mirum noscere mundum

Si possunt homines, quibus est et mundus in ipsis?'

It would be foreign to our purpose to disentangle the

* 'Fluid' is perhaps the best translation for the Stoic πνεῦμα. 'Spirit' is unsuitable on account of the connotation which it acquired in Christian thought; moreover, the Stoic meant by the word much the same as the modern physicist means by 'fluid' when used of the all-pervading ether.

† The phrase, which we find in Philo and the Neo-Platonists, is borrowed from astrology, to which many of the later Stoics were attracted by reason of its affinity with their doctrine of the συμπάθεια τῶν ὄλων.

web of intricate and often inconsistent speculations woven by the philosophic astrologers around the doctrine of the descent of the divine spark, acquiring on its downward path the Ruling Power of reason from the Sun, and a body compounded of the Four Elements in the lunar sphere;* the mysteries were concerned rather with the soul's return to God after the dissolution of its bodily envelope.

We seem to have travelled far from our subject; but it has been necessary to show that at the commencement of our era the Græco-Roman world was already half won for such a religion as Mithraism. Four conditions of success were essential to a conquering creed. In the first place, it must satisfy the religious emotion proper, which craved assurance of the divinity and immortality of the higher element in man. This assurance was imparted by the revelation of a 'mystery' to the initiated, and the ritual and sacramental union between the worshippers and their God. Secondly, it must be capable of interpretation and expression in terms of the prevailing philosophy; for, in order to achieve the conquest of a society which was as motley as our own, a religion must be not only the treasure of the humble, but also the storehouse of the learned. Thirdly, it must provide a rule of conduct for the individual, not embodied in a code of formal injunctions or negative prohibitions, but springing from some root-principle grasped and held with the fervour of intuition. Lastly, it must assure to itself the goodwill, if not the active support of the State—especially a State so all-embracing as the Roman Empire.

We have now to show how these conditions were fulfilled by Mithraism. It was said above that our knowledge of the cult was largely derived from the remains of its sanctuaries, supplemented by some few allusions in ancient literature. We should, however, possess a fuller and more trustworthy source of information about the Mithraic mysteries could we accept the document published by Dieterich under the title of 'Eine Mithrasliturgie' as being justly entitled to that

* The myth in Plutarch's treatise 'On the Face in the Moon,' ch. xxvi, ff., may be read by the curious.

designation. This document forms part of the contents of the great 'magical' papyrus of the Bibliothèque Nationale, written probably in the reign of Diocletian. It is beyond question that, even if the prayers and instructions imparted to the initiate may be traced to their origin in the liturgy of orthodox Mithraism, they have been appropriated by one of the tribe of sorcerers who batted on the credulity of mankind under the later Empire, and interlarded with the gibberish which was part of the stock-in-trade of such practitioners. Dieterich himself prints the closing paragraphs separately under the title 'Directions for the practical use of the liturgy,' which is to be employed in the *séances* of an Egyptian medium. The only mention of Mithras is in the opening formula, which runs as follows :

'Be gracious unto me, Providence and Fortune, to me who am writing down these the first of all traditional mysteries, and grant immortality to my only child, an initiate worthy of this mighty power, which the great God, the Sun, Mithras, bade his archangel transmit to me, that I alone, an eagle,* might tread the heavens and behold all things.'

Clearly, it is the initiator who speaks here, his 'only child' being the novice, to whom the magic formulæ which unlock the gates of heaven are to be imparted. The first of these formulæ is a prayer in which the neophyte invokes the 'perfect body' fashioned for him of spirit, water, earth and fire 'God-given for the blending,' and gives utterance to his desire to be 'born again in the mind' and to 'behold with immortal eyes, though but a mortal born of a mortal womb, yet exalted by power and great might and an imperishable right hand, the immortal Æon and Lord of the fiery diadems.' After reciting this prayer, the novice is instructed to draw in breath thrice from the sun's rays, when he will feel himself uplifted into the air and behold the Gods of the pole (i.e. the planets) ascending and descending. A clap of thunder follows, and the initiate replies thus: 'Silence! I am a star that wanders with you, shining forth from the deep.' We need not pursue in detail the visions which follow—the youthful figure of the

* The word is conjecturally restored by Dieterich ; cf. *infra*, p. 117.

Sun in white robe and scarlet mantle, the seven maidens with snake-faces and the seven Gods with the heads of black oxen—nor the carefully prescribed whistlings, cluckings and bellowings with which they are greeted or evoked by the neophyte. The climax is reached with the appearance of a God 'young, golden-haired, with white robe and golden crown and trousers, holding in his right hand the golden shoulder of an ox, which is the Bear that moves the heaven this way and that,' in whom we may, with Dieterich, recognise the figure of Mithras without prejudice to our final judgment on the document.* The rite closes with the injunction :

'Gaze fixedly upon the God, bellow loud and long, and greet him thus : "Hail, O Lord, Master of the water! Hail, Ruler of the Earth! Hail, Dynast of the Spirit! Oh Lord, born again I die, being exalted, and having been exalted I meet my end; born of the birth which engenders life, dissolved in death, I tread the path which thou didst establish, which thou didst ordain and institute a Mystery."'

We have omitted the uncouth jargon which the sorcerer has foisted even into his final prayer, ending with the significant request 'Give me an oracle concerning such-and-such a matter.' The purposes of the black art are highly practical; and human cupidity responds readily to the offers of those who claim to unlock the secrets of the future. The question which interests us is whether the text which the writer of the papyrus has adapted for his own ends is indeed a genuine fragment of a Mithraic liturgy. This seems highly doubtful. The imagery which enriches the abstractions common to all the theosophies of later antiquity we may admit to be at least in part Mithraic, though in part also of Egyptian origin.† But it is clear that we have to do with no ritual in which a congregation such as those which were gathered in the Mithrea took part. The revelation of the pathway to immortality is made privately by the initiator to his 'child'; and its closest analogies are to be sought

* On a Mithraic relief from Virunum we see Helios kneeling before Mithras, who lays his left hand upon his head and holds in his uplifted right an object which Dieterich may be right in identifying as an ox's shoulder.

† E.g. the seven maidens with snake-faces (cf. the Hathors).

in the duologues of the 'Corpus Hermeticum,' which also proceed from a school of theosophy whose home was in Egypt. Stripped of their theurgic trappings, the religious ideas of the 'Mithras liturgy' are closely related to those conveyed, for example, in the thirteenth tract of the collection referred to,* where the 'Thrice-greatest Hermes reveals to his 'child' Tat the process of rebirth by which the immortal element in the microcosm of the soul is released from its association with those which the lower senses perceive. We shall do well, therefore, to regard the text of the Paris papyrus rather as a product of syncretism—the process by which a common stock of religious notions was decked out in a robe of many-coloured symbols borrowed from various cults—than as a genuine fragment of the ritual observed by the Mithraic communities.

Such direct evidence as we have for the nature of the ceremonies of Mithraism shows that the symbols of the cult were imparted to the worshippers in a series of initiatory ceremonies which opened the door to successive grades of sacramental union. The *locus classicus* on this subject is contained in a letter of St Jerome, who reminds his correspondent, a Roman lady, how a kinsman of hers, on his conversion to Christianity, had destroyed the cave of Mithras with the 'monstrous idols' used in the initiation of the several grades of worshippers—the 'Crow' the 'Hidden One,'† the 'Soldier,' the 'Lion,' the 'Persian' the 'Courser of the Sun,' the 'Father.' The text of St Jerome receives confirmation from a series of inscriptions found at Rome in a Mithreum discovered in the Piazza S. Silvestro. In these we read how the 'Fathers' of the community initiated certain of its members in the higher grades. In most instances the inscriptions speak of symbols 'handed down' to the initiates—'tradiderunt hierocoracica, leontica, persica, heliaca'; but we also find the expression 'ostenderunt cryphios' ('revealed the hidden ones'), from which Cumont inferred, probably correctly, that in this ceremony the worshippers

* This is the fourteenth tract in the arrangement of Reitzenstein, who calls it 'The Initiation of a Prophet.'

† The MS. text is corrupt, but has been emended in accordance with the inscriptions mentioned in the text.

were veiled or otherwise hidden, and at a given moment revealed to the congregation. It is possible that such a ceremony may be represented on a relief from Arçer now at Sofia, which has recently been published by Kazarow* and explained by Rostowzew,† where we see a kneeling figure, wearing the 'Phrygian' cap, partly hidden by a veil held by two other figures.

It should be observed that no mention is made in this series of inscriptions of the 'Soldier,' of whom we read again in a well-known passage of Tertullian in which the analogy between the 'militia Christi' and the sacred warfare of the Mithraist is developed, and perhaps also in a Greek inscription from Amasia which speaks of a στρατιώτης εὐσεβής. This omission may perhaps be explained by the supposition that the Mithraic 'recruits' formed the rank-and-file in the congregation. The symbols of the 'Sacred Crow' were conveyed to one of the initiates mentioned in the inscriptions of S. Silvestro 'anno tricensimo acceptionis suæ'; up to that time, we must suppose, he had remained a simple *miles*.‡

We have a striking but inconclusive piece of monumental evidence bearing upon these questions. A relief found at Konjica in Bosnia, now in the Museum at Sarajevo (pl. II), represents what has been called the 'Mithraic Communion.' Here we see two figures reclining on a couch, one of them with a drinking-horn in his hand, in the attitudes in which, on other monuments, Mithras and Helios are represented. We may suppose that the heavenly banquet was reproduced on earth by the 'Father' and the 'Sun's Courser.' On either side of the couch stand two figures. Those on the left are easy to identify. One wears the mask of the 'Crow,' the other the cap of the 'Persian.' On the extreme right we see the 'Lion'; but between him and the central group is a figure, unhappily mutilated, in whom we should expect to find the 'Hidden One.' It must be remembered, however, that there is some evidence for the existence of other animal disguises in the Mithraic cult. Porphyry,

* 'Archiv für Religionswissenschaft,' 1912, Pl. I, 4.

† Представление о монархической власти въ Скиѣи и на Египтѣ, p. 53.

‡ Cf. Mr Phythian-Adams' discussion of these points, 'Journal of Roman Studies,' ii, p. 53 ff. The phrase 'miles pius' occurs on two inscriptions from Wiesbaden.

PLATE II.



THE MITHRAIC COMMUNION.
(Relief found at Konjica, Bosnia.)

(To face page 116.)

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in a corrupt passage of the 'De Abstinencia' (IV, 16), speaks of 'Eagles' and 'Hawks,' as well as the 'Lions' who, as he tells us, 'partook of' the Mithraic Sacrament while the 'Crows' waited upon them; for the 'Eagles' we have independent evidence.* Porphyry also tells us that women were admitted to the grade of 'hyæna'; but this is probably a copyist's error for *λέαινα*, since in a tomb discovered in Tripoli were buried a husband and wife, described as 'leo' and 'lea.' A Christian writer of the fourth century tells us how the initiates 'flapped their wings like birds, imitating the voice of the crow, whilst others roared like lions'; so that it is abundantly clear that Mithraism plunged its roots deep in the past of the race and perpetrated those strange masquerades in animal disguise which still figure in the worships of primitive races.†

Had this been all that it had to offer, it would be hard to account for the hold which it acquired upon the souls of men. We may be sure that the grotesque externals of the cult were transmuted into symbols whose absurdity was forgotten in the glory of the prospect which was unfolded before the eyes of the worshipper. We would gladly know more of the terrifying ordeals to which the initiates of Mithras are said to have been subjected. The Christian writers who describe them probably knew them only by vague report, and the dark tales of human sacrifice at which they hint may safely be rejected‡; the kernel of truth which they contain is to be sought in the simulated death which was followed by that 'rebirth to immortality' so ardently craved by the 'other-worldly.' Passing suddenly from darkness to light, the worshipper was doubtless permitted to behold such visions as those

* Cf. p. 113, note. Two inscriptions of Lycaonia which mention *ἀερόλ* may be Mithraic.

† Loisy, in a recent article in the 'Revue d'histoire et de littérature religieuses,' iv, p. 497 ff., discusses at length the evidence for the Mithraic ceremonies of initiation, etc., and emphasises their primitive character. As survivals of prehistoric practice, they throw a light on early Iranian religion which we seek in vain from the sacred books of later Zoroastrianism.

‡ The author of the life of Commodus in the 'Historia Augusta' tells us that the Emperor on one occasion perpetrated a real murder instead of a feigned one. Tertullian's account of the initiation of the *miles*, who 'sub gladio redimit coronam,' and having so done, rejects the crown, using the words 'Mithras is my crown,' is obscure.

described in the 'liturgy' of the Paris papyrus, and instructed in the mystic pass-words which he must one day use to unlock the gates of the eight heavens.*

We know somewhat more of the cosmogony taught by a learned clergy to those who sought in religion intellectual as well as emotional satisfaction. The ingenuity of Cumont, working upon the hymns of the Avesta and the Mithraic monuments, has restored the outlines of the mythical fabric. In the religion of Zoroaster, Mithras, as we have seen, was the champion of Ahura the Wise and the dispenser of his grace; his visible manifestation was the heavenly light which is shed abroad not only by the sun in his strength, but also by the dawn which reddens the mountain-tops and the afterglow which gilds the western horizon. This 'triple Mithras' is symbolised in Art by the addition to the central figure (presently to be described) of two torch-bearers, one on either side, bearing the titles *Cautes* and *Cautopates*. Under the influence of astrological speculation the triad acquired a new meaning; and the torch-bearers bore the symbols of the Bull and the Scorpion, the zodiacal signs entered by the sun at the commencement of spring and autumn.

As prince of the air, Mithras was the 'mediator' (*μεσίτης*) between Heaven and Earth, God and Man—a fruitful conception which suggests a Christian analogy. But beside this he was the hero of a legend, several episodes of which are represented upon our monuments. We see, for example, the birth of Mithras from the Rock—'Petra genitrix' in the inscriptions—which perhaps typified the solid vault of heaven. We see the divine child worshipped by shepherds, or half-hidden by the branches of a tree—scenes of which the interpretation is a matter of guess-work. It is easier to grasp the meaning of the scene in which Mithras, the divine archer, discharges his arrows at a rock from whence flows a stream of water; the rock is here symbolical of the cloud pierced by the sun's rays. In another group

* Celsus (as quoted by Origen) speaks of a 'ladder with seven gates and after it an eighth' (symbolising the planetary and stellar heavens) as used in the mysteries of Mithras; and in a Mithreum at Ostia we find six semicircles traced in mosaic on the floor of the nave, while on the side-walls the planets and the constellations of the Zodiac are represented.

of subjects Mithras is coupled with the Sun-god proper, Helios; the story of their relations is obscure, but it clearly ends with the investiture of Helios by Mithras, and an alliance between the two sealed by a banquet, which, as we have seen, was symbolically celebrated in Mithraic ritual.

More important than all, however, was the cosmogonic myth of Mithras and the Bull. There can be little doubt that we have here one of those legends invented in order to explain primitive ritual—in this case the sacrifice of a bull (embodying the 'Corn-Spirit') in order to promote the fertility of the earth. For the successive episodes of the story, the explanation of which is often obscure—the first pursuit of the bull by Mithras, who seizes it by the horns while at full gallop, and having at length checked its career, drags it by the hind feet to a cave, its escape, the message borne to Mithras by the crow, and its final recapture—are but preliminary to the culminating sacrifice, a representation of which, in every Mithraic sanctuary, occupied the position of the altar-piece in a Christian church.* We have already seen (p. 107) that the type was the creation of Pergamene art. Flanked by the two torch-bearers, Mithras plants his knee firmly upon the back of the bull and plunges his knife into its throat.† The clue to the mystical meaning of the sacrifice is given by the accessory details, which teach us that the miracle of creation was accomplished in and through the death of the Bull. From his spinal marrow sprang the fruits of the earth, symbolised by the bunch of ears of corn in which the tail ends; from his blood the grape, whose juice was the elixir of immortal life, and his seed, when purified by lunar influences, engendered the animals useful to man. But the triumph of life over death was not won without a desperate effort made by the power of darkness to frustrate the design of Ahura-Mazda; the noxious creatures of Ahriman—scorpion and serpent—are seen

* The cave in which the sacrifice took place gave its name—*spelaeum*—to the Mithraic sanctuaries, which were often natural grottoes. In towns vaulted crypts were substituted.

† The subject is represented on a bronze coin of Tarsus, pl. III, 5, in the British Museum (Catal. Cilicia, xxxvii, fig. 4), which has been gilded, doubtless because it was used as an amulet.

in their futile endeavour to consume the fertilising seed of the Bull and to drink his life-giving blood.

Amongst these Mithraic 'altar-pieces' one of the most remarkable is that found at Heddernheim (pl. I, a), an advanced post of Roman civilisation in the Taunus district, where the presence of a considerable Oriental population is proved by the dedications made by the settlers to the divinities of their native regions. It is true that it has but small artistic merit, and that the busts and groups which form a framework enclosing the conventional subject of the Slaying of the Bull are somewhat ill-preserved and less important than those of kindred monuments as illustrations of the mythical story; but the slab derives a unique importance from the fact that it was made to revolve upon a pivot, so that the eyes of the faithful might rest upon a second representation (pl. I, b) by means of which the significance of the first was visibly displayed.* Behind the body of the slain Bull stands Mithras, holding in his left hand a *rhyton*, or drinking-horn, and receiving from the hands of Sol a bunch of grapes, symbol of the divine juice into which the blood of the victim was transmuted by celestial alchemy. The place of the torch-bearers is taken by two childish figures, their counterparts, who hold baskets of fruit, the produce of the vegetable world which sprang from the corpse of the Bull. It is hard to say what is symbolised by the radiate cap planted on a pole in the background; but in the upper portion of the relief we have a scene, much defaced, but yet indicating clearly enough that the doctrine mentioned above with respect to the origin of animal life formed part of the Mithraic Mystery as revealed to the worshippers at Heddernheim. Unfortunately the details of the central figure are irretrievably lost; and Cumont's suggestion that Silvanus, concealing under a borrowed form the Drvâspa of the Persian Pantheon, was here represented, is but a doubtful guess.

It may seem strange that a creation-myth should thus fill the central place in the sanctuaries of Mithras; and the explanation must surely be sought in the fact that the story had a significance for the future as well

* The relief from Konjica figured above (pl. II) also forms the reverse of a revolving altar-piece.

as for the past.* And in fact we know that according to the eschatological teaching of Zoroastrianism the ultimate triumph of Ahura-Mazda over Ahriman will be heralded by the reappearance of the divine Bull, followed by the descent of Mithras to the earth and the resurrection of the dead. Once more the bull will be sacrificed, and the worshippers of Mithras will partake of a sacrament the enjoyment of which will secure to them endless bliss, whilst the enemies of Ahura-Mazda will be consumed in the final conflagration. We cannot doubt that some such doctrine as this was recalled to the mind of the Mithraist when he looked upon the familiar scene; and the well-known rite of the 'Taurobolium,' belonging properly to the cult of the Great Mother of Hither Asia, but adopted by Mithraism when this divinity was identified with the Persian Anahita,† easily found a place in the same order of ideas, and conferred upon those who submitted to its baptism of blood the coveted 're-birth to eternal life.'

Of the moral injunctions laid upon the Mithraist we know but little, except in so far as we may use the evidence of Zoroastrian writings. In the religion of ancient Persia Mithras was the guardian of truth, purity and justice; and these virtues were doubtless enjoined by the 'commandments of Mithras' of which Julian speaks. Ceremonial ablutions and ascetic practices are ascribed to the Mithraists both by Christian and pagan writers; but they were common features of the group of religions to which Mithraism belonged. What gave it a power of its own and contributed largely to its success was the conception of morality as a conflict, derived from the Zoroastrian dualism. The contemplative might indeed find that which his soul desired in the glorious vision of future union with the Godhead held before his eyes in the mysteries; but, even in an

* Loisy (*op. cit.*) believes that the sacrifice of the bull was offered in the sanctuaries of Mithras with its original intention, i.e. as a rite for the promotion of fertility; and also that, as primitive man conceived of the animal as embodying the God, the act of Mithras was in some sort a self-sacrifice, which would account for the pathetic expression he wears in the more artistic reliefs. These are somewhat doubtful conjectures.

† This at least is the opinion of Cumont, which carries great weight; and there is certainly no direct evidence that the 'taurobolium' originally belonged to Mithraism.

age of 'other-worldliness,' a religion which makes its appeal to the contemplative alone cannot become a conquering force. The soldiery of Mithras was recruited from the world's workers and fighters, who were inspired by the lofty conception of a struggle between Light and Darkness in which they were led to victory by 'Mithras the Unconquered,' and played their part in securing the final triumph of Good. Small wonder that Mithraism was pre-eminently the creed of the soldier, and that its monuments are found wherever the legions pitched their camp. It must have needed little to convince the Roman soldier at his frontier post on the Rhine or in Northern Britain that his constant warfare with the barbarian was but a phase of a more tremendous conflict. Few indeed were the breasts in which the Stoic ideals could kindle such a fervour as that which breathes in the meditations of Marcus Aurelius, as compared with the multitudes whom the bracing doctrines of Mithraism nerved for their daily warfare with the power of evil.

We have now seen how the religion of Mithras, by means of its sacramental mysticism, its speculative theology and its moral code, made its triple appeal to the emotions, the intellect and the consciences of men. One thing it yet lacked in order to attain the rank of a universal religion—the support of a powerful State. It has already been shown how the doctrine of the *Hvareno* lent itself to the purposes of legitimate monarchy. A fresh illustration of this feature of Mithraism has been recently furnished by the researches of Rostowzew in connexion with the archæological material found in Southern Russia.* We find in the East a type of Mithras unknown on Western monuments—the horseman whose steed tramples beneath its feet a prostrate foe.† Rostowzew has shown that the gold and silver ornaments found in such profusion in the tumuli of Southern Russia‡ furnish evidence that this

* Представление о монархической власти въ Скиѣи и на Боспорѣ, St Petersburg, 1913. A summary of these researches was read by Prof. Rostowzew to the International Historical Congress in London.

† A unique coin of Trapezus (Trebizond) shows Mithras on horseback between Cautes and Cautopates (pl. III, 2), and establishes the identity of the God, who was formerly thought to be Mên, on such coins as those shown on pl. III, 3, 4.

‡ See Mr E. H. Minns' 'Scythians and Greeks.' Cambridge, 1913.

PLATE III.



1. MITHRAS AND A SCYTHIAN PRINCE.
(Silver rhyton from Karagodeuashch.)



2.

COINS OF TRAPEZUS (TREBIZOND).



3.



5.

COIN OF TARZUS.
(To face page 122.)



4.

COIN OF TRAPEZUS.



divinity was regarded as the protector of the Scythian princes who ruled in this half-Greek, half-Iranian region. The barrow of Karagodeuashch in the Northern Caucasus contained a silver *rhyton* or drinking-horn (pl. III, 1) adorned with the figures of two horsemen in Scythian costume trampling upon prostrate enemies. The one uplifts his hand in the gesture of adoration; the other—the God—holds the sceptre and drinking-horn, the symbols of kingly power. An almost identical subject occurs on Persian rock-sculptures, representing the investiture of Sassanid Kings with the insignia of sovereignty. The date of the interment is perhaps as early as the third century B.C.; and it can be shown that, as time went on, the influence of Iranian ideas of kingship grew stronger, transforming the Greek βασιλεύς or τύραννος of the Cimmerian Bosphorus into an orientalised monarch ruling by the grace of his God.

A time was to come when the Roman Emperors would claim a like position as vicegerents on earth of the Unconquered Sun-god; but the progress of Mithraism in the West was at first slow. In the Greek world it made few converts. Even in later days a fastidious rationalist like Lucian would sneer at the God 'who could not even talk Greek'; and scarcely a monument of his cult has been found in purely Greek lands. Hellas formed a barrier between East and West which Mithras only crossed when the establishment of a cosmopolitan empire brought an influx of Oriental slaves, soldiers and traders to Rome and the West. Plutarch tells us that Mithraism was introduced into Rome by the Cilician pirates made captive by Pompey; but, if this be true, it remained for more than a century a sect as obscure and despised as the primitive Christian community. The monuments, in fact, tell no uncertain tale. The earliest dated inscription from Rome was set up by a freedman of the Flavian house; next comes a sculptured group of Mithras the Bull-slayer, now in the British Museum, dedicated by a slave of one of Trajan's prætorian prefects. In the second century, when 'the Syrian Orontes poured its waters into the Tiber,' the spread of Mithras-worship in Rome and the West was rapid. Legions and 'auxiliary' regiments recruited in Pontus and Cappadocia,

such as that which followed the standards of Vespasian and on the field of Betriacum greeted the rising of the Unconquered Sun, brought their worship to the banks of the Danube and the Rhine. Settlers drawn 'ex toto orbe Romano,' but more especially from the eastern provinces, were established by Trajan in the newly-won province of Dacia; and Mithras became the principal divinity of the region. Syrian traders, vying with the Jews of the Dispersion in the pursuit of gain, brought with them not only the local Baalim, but also their Persian neighbour, to ports such as Ostia and Puteoli, Ravenna and Aquileia, or penetrated the western provinces by the valleys of the Danube, the Rhone or the Gironde. Slaves, imported by the dealers who carried on their traffic chiefly in Asia Minor, or captured in the various wars with Parthia, found their way into the households of wealthy Romans, or rose, it might be, to posts in the civil service; and it was thus, no doubt, that Mithraism gradually made converts amongst the ruling race and claimed the attention of the Government.

Nero had received the homage of the Parthian prince Tiridates, who having prostrated himself at his feet, addressed him thus: 'I have come to thee as my God, to worship thee even as Mithras, and I will be whatsoever thou shalt decree, inasmuch as thou art my Fate and my Fortune'; but, though the use of the radiate crown—symbol of the Sun-god—dates from Nero's reign, it was not till that of Commodus that an Emperor was counted amongst the initiates of Mithras. Henceforward the epithet 'invictus,' which to the Eastern mind had a special association with the Sun-god, forms part of the official style of the Emperors. Under the dynasty of the Severi we meet with a 'priest of Mithras the Unconquered in the house of Augustus'; and, though Caracalla professed a special devotion for the Egyptian divinities, Isis and Sarapis, a large Mithreum, only recently excavated, was built within the precinct of his *Thermæ*. The 'solar pantheism' which Aurelian made the official religion of the state was unlike Mithraism in the pomp and circumstance of its ritual; it was celebrated in a gorgeous temple which was one of the wonders of later Rome, and modelled

on Syrian cults such as that for which Elagabalus had sought to secure a like position. But its doctrines were easily reconciled with those of Mithraism by the ingenuity of an erudite priesthood; and the mysteries celebrated in the *spelæa* served to supply what the state-cult could not give—emotional satisfaction for the individual and intimate religious fellowship with the members of his congregation. In the reign of Aurelian it might well have seemed that Mithras was about to celebrate the greatest of his triumphs. Less than thirty years later, when Constantine crushed the legions of Maxentius at the Milvian Bridge, 'Sol Invictus' lost his proud title once and for all.

In Christianity Mithraism found a rival with which, as the Christians themselves were not slow to observe, it had some striking features in common. Justin Martyr and Tertullian both suggest that its mysteries were a Satanic travesty of the Christian sacraments. The former compares the Mithraic communion in bread and water with the Eucharist; and in fact we see on the relief of Konjica a table bearing four loaves marked with the sign of the Cross, while the 'Persian' holds in his hand a drinking-horn. But the fancied resemblance does not carry us beyond the simple fact that in both religions (as in others) a sacramental meal was shared by the worshippers. There is in truth a deeper ground of similarity. In both Mithraism and Christianity the world-process is conceived in dramatic form as a warfare between the heavenly host and that which is enrolled under the banner of the Prince of Darkness; both, therefore, appeal to human nature with an inspiring summons to battle. To the Christian, however, the drama of the Fall and Redemption of Man, briefer in time, is also more intense in its interest, since it is repeated in the history of the individual soul. Mithras, like Christ, bears the name of 'Mediator'; but this is in virtue of a cosmic theory remote from the interests nearest the human heart. The Mithraist, finally, looked forward to a 'far-off, divine event,' when the dead should be raised and a great assize should inaugurate the restoration of all things; he did not, like the early Church, live in hourly expectancy of the return of One who had but lately been caught up from earth to heaven. Nor must we forget

that the *intransigence* of Christianity saved it from the alliances and compacts which Mithraism was always ready to make with other, sometimes grosser, forms of nature-worship. It is often said that Mithraism failed because it left women out of account; and although we have seen that there is some slight evidence for the admission of women to the mysteries, the statement is doubtless broadly true. The defect was, however, remedied by alliances with other worships—especially that of the Great Mother, whose chapels were often contiguous with the Mithrea—in which a female divinity was the central figure. Rostowzew has thrown much light on the singular development of Mithraism in the Danube regions, where Mithras is first duplicated and then combined in a Trinity with a goddess who seems to represent an identification of the Great Mother of Asia with the Persian Anahita.

Mithraism did not long survive the establishment of the Christian Empire, which soon ceased to tolerate a hated rival. The process of extermination was, however, interrupted by the reign of Julian, who had been initiated into the Mithraic mysteries in youth and in maturer age composed a prose poem in honour of 'King Helios,' whose frigid conceits and allegories are redeemed by touches of genuine religious fervour. Mithras now becomes an element in the great synthesis of myth, ritual, and, it must be added, magic (he speaks of the 'blessed miracle-workers'), by means of which the last champions of Paganism sought to preserve intact the heritage to which they clung so passionately. Stoicism had long since given place, as the ruling philosophy, to that of the school which claimed descent from Plato; and this was now led by the Syrian Iamblichus, whom Julian calls 'later in time than Plato, but not inferior to him in genius.' Iamblichus, an unworthy successor of Plotinus, had interpolated a world of 'intellectual Gods' between the intelligible and the visible; and of these Mithras, the 'Mediator,' was a convenient symbol. But to Julian he was more than a symbol. At the close of the 'Cæsares' Hermes addresses the Emperor thus:

'To thee have I granted to know the Father, even Mithras; and do thou keep his commandments, providing for thyself

a sure cable and anchorage in this life and securing to thyself against the day of thy departure hence, with a good hope, a kindly God to be thy guide.'

Had Julian succeeded in establishing the State Church of his dreams, with an ecclesiastical hierarchy modelled on that of Christianity, a debased Neo-Platonism as its philosophy, and Sallustius' treatise 'On the Gods and the World' as its catechism, the vocabulary of devotion would have differed but little from that of the Christian. But the project perished with its author.

Sixteen years after the death of Julian an Emperor ascended the throne who earned his title to the epithet of 'Great' by the ruthless and decisive blows which he dealt against heterodoxy and heathenism. The reign of Theodosius put an end to the public practice of pagan rites, which lingered on amongst the obscure tribes of remote Alpine valleys and in the private chapels of that section of the Roman aristocracy which made the Senate-house the home of lost causes. The *coterie* led by Symmachus and Prætextatus clung fast to the old creeds; the latter, in the last dateable Mithraic inscription, recounts how, to make assurance of salvation doubly sure, he had not only been initiated into the mysteries of Eleusis but had undergone the blood-bath of the 'taurobolium' and attained the grade of *pater patrum* in a Mithraic confraternity. We may smile at the pathetic mingling of pedantry and pietism in this clique of reactionary *grands seigneurs*; but much may be forgiven to the orator who, in pleading for the restoration of the altar of victory in the Senate-house, reminded the Emperor that 'not by one path alone can the Great Mystery be approached'; nor can we wholly refuse our sympathy to those who, ere the once-resplendent figure of Mithras vanished for ever into the dim twilight of the Gods of Paganism, 'caught the serene surprises' of that setting sun.

H. STUART JONES.

Art. 6. — THE LOGIC OF THOUGHT AND THE LOGIC OF SCIENCE.

1. *Logic, or the Morphology of Knowledge.* By Bernard Bosanquet. Second edition. Two vols. Oxford: Clarendon Press, 1911.
2. *The Scope of Formal Logic.* By A. T. Shearman. London: University Press, 1911.
3. *A New Law of Thought and its Logical Bearings.* By E. E. Constance Jones. Cambridge: University Press, 1911.
4. *A New Logic.* By Charles Mercier, M.D. London: Heinemann, 1912.
5. *Formal Logic. A Scientific and Social Problem.* By F. C. S. Schiller. London: Macmillan, 1912.
6. *Scientific Method; Its Philosophy and its Practice.* By F. W. Westaway. Glasgow and London: Blackie, 1912.
7. *The Science of Logic. An Enquiry into the principles of accurate thought and scientific method.* By P. Coffey. Two vols. London: Longmans, 1912.
8. *Encyclopædia of the Philosophical Sciences.* Vol. 1: *Logic.* By Arnold Ruge and others. London: Macmillan, 1913.

And other works.

‘ALL these books on logic, and not text-books either! How strange! Who reads them?’ Such will probably be the natural comment of the average man who may have yawned over some elementary text-book at college. The subject was so very uninteresting, so painfully fixed and certain. There was a dry and wearisome discussion of the laws of thought and terms and propositions. Then we passed on to the syllogism with its figures and moods. And there were the familiar lines which remain when their meaning is forgotten :—

‘Barbara, Celarent, Darii, Ferioque prioris ;
Cesare, Camestres, Festino, Baroco secundis ;’

and so on.

Aristotle wrote a book on logic many centuries ago, and critics and commentators have discussed it ever since. We look at Dr Coffey’s volumes and find it all there, what so many generations have learnt. The Oxford man meets it in his ‘Greats’ course, and occasionally a

Cambridge man may be foolish enough to take it in the 'Little Go' instead of Paley; Paley is so much easier, as all the coaches have known since the days of Tom Brown. A London man, reading alone, may find it a useful substitute for an experimental science. There is no practical work, and you can do so much more in the vacation if you reduce the number of experimental subjects. But what is all the bother about? And why should anyone wish to discuss it?

One disturbing cause is due to the old use of the term science as a synonym for logic and allied studies. As Dr Schiller aptly points out, his Oxford degree of Doctor of Science does not imply competence in natural science, merely in logic and other branches of philosophy. It is the old scholastic use of the term. Froude's famous essay on the relation between natural science and general science illustrates the meaning. What we now term science corresponds to Froude's natural science. But the paradox of the situation lay in the fact that logic, which was formerly termed science, though it professed to be a study of the methods of accurate thinking, could tell us little or nothing of the methods by which science progressed and scientific discoveries were made. Mill endeavoured to fill the gap by a treatise dealing with what he termed inductive logic, under which heading he included the formulation of generalisations and the inferring of scientific truths from the particular facts of observation and experiment. The extension has invaded the text-books and has now received the high-sounding name of methodology. To this branch, which I prefer to term the logic of science, I shall refer later. But, apart from the new development, there has, during the past few years, been a vigorous onslaught on formal logic, even in its present somewhat restricted sphere.

The two most notable opponents of the old scholastic and Aristotelian logic are Dr Schiller and Dr Mercier. Dr Schiller is the more powerful controversialist. He is himself a teacher of philosophy, thoroughly acquainted with the history of the subject, its current controversies, its place in the university curriculum, the methods of teaching, and the relation of the subject to other branches of philosophy. In a volume of more than 400 pages, he gives vent to a profound dissatisfaction. What can be

said against formal logic, its validity or its usefulness, we shall find clearly and sometimes bitterly expressed by Dr Schiller. He thinks the subject fundamentally unsound, doubtful mental training, dull and wearisome even to philosophers. It finds no support from the newer study of psychology, it has only failed to block scientific progress because science has ignored it; it has had a malign influence on religion, and is a potent cause of intolerance and persecution; its social effects, so far as it is operative, are without a redeeming feature. Such are some of the charges he brings against formal logic. All this sounds somewhat exaggerated, but it deserves serious notice. The average man who has forgotten his logic will agree that it certainly *was* dull, but, otherwise, will be somewhat surprised. He will be interested, therefore, to know that not only has Dr Schiller collected all these faults of formal logic, but has diagnosed the malady from which they arise. We will state his diagnosis in his own words:

'It is NOT possible to abstract from the actual use of the logical material and to consider "forms of thought" in themselves, without incurring thereby a total loss, not only of truth but also of meaning.'

To deal fully with this attack, and with its fundamental basis, would require a consideration, not merely of logic, but also of psychology, of philosophy and especially of pragmatism, and would take us far beyond the limits of the present short essay. Dr Schiller is the leading exponent of the pragmatist school of thought; and one of the characteristics of his philosophy is a depreciation, not only of logic, but also of reason. Hypothetically, therefore, we are bound to agree with him. The latter implies the former. In so far as reason is of small importance, *a fortiori*, so is logic. Dr Schiller seeks to supplement, or, it would be more correct to say, to displace logic by a science as yet unformulated, which he terms psychologic. Logic, according to his exposition, deals with thinking as the academic logician supposes it to work; psychologic is to deal with real human thinking as it actually occurs. But, if we make any enquiry concerning the content of psychologic, we can obtain no information. We

cannot displace an old logic by a new psychologic unless and until we can gather some idea of what psychologic may be. As no one would be more ready to admit than Dr Schiller, the value of any proposal of the kind depends entirely on its practical working. If that is non-existent, we cannot assign to the vague idea any considerable significance. Dr Schiller's remarks, or many of them, can be admitted by the most formal of the formalists and the most scholastic of the schoolmen, without detriment to logic as commonly understood. In actual practice, we are bound to admit that, in many of the inferences we do make, psychology, will, and purpose enter very largely. They are not formally valid. We do take the risk that they may or may not be true; and their degree of truth can only be shown by their agreement with subsequent experience. Any enquiry, though it would not be within the limits of logic as commonly understood, concerning how, when and why, and under what conditions such actual, practical 'risking' inferences are likely to contain more or less of truth would be of the utmost value. But this no pragmatist has ever given us; and moreover, to engage in such an enquiry, it is not necessary to accept the pragmatist position.

Granting this to Dr Schiller, we must disagree with his fundamental diagnosis. The ground of disagreement lies in philosophy rather than in logic. The process to which Dr Schiller objects is the necessary condition of all reasoning whatever. Any process of inference implies the abstraction of form from matter to a greater or a less extent. If I state that two and two make four, I have abstracted from the properties of material things a formal concept to which it is not easy to attach an intelligible meaning apart from the material things from which it is abstracted. The things which may be said to possess the property number have disappeared. Whether or no we have sacrificed meaning is a verbal question hardly worth discussion. Certainly we have not sacrificed truth. On reasoning of this kind all mathematics is based. There is thus a large field for the study of absolutely valid and necessary formal reasoning.

It would hardly be profitable, even if it were possible, to enter into the question of the teaching of logic in the

universities. Dr Schiller has stated that his emphatic assertion of some truths which would seem to be obvious to every common-sense mind, and his criticisms on sundry minor points which I, for one, am in no way disposed to dispute, are necessitated by the methods of teaching the subject. He is in a position to know; and any defence on these matters should come from a professional teacher, and is more suitable for the technical journals than for the pages of this Review. Universities, university teaching and management, are open to criticism in many ways. Logicians are not the only specialists who overestimate the value of their own study; and logic is not the only subject in which we find the element of sham and pretence, and in which the power of vested interests can be discovered. Such are the common vices of all endowment of university teaching, and, it must be admitted, also of scientific research. Such matters, which continually appear throughout Dr Schiller's attack on logic, we cannot deal with here.

The point with which we are immediately concerned is that, in spite of all his diatribes, Dr Schiller admits nearly all that the old-fashioned philosopher, with no axe to grind, needs to assert. Truth will out, even in the most embittered controversy. In his penultimate chapter, with many a jibe and joke, Dr Schiller admits for formal logic a certain sphere, within certain prescribed limits. It is called a game. Perhaps it is. But, if we examine closely enough, much else beside logic can be described in similar terms. Symbolic logic is referred to as another game, played with the same rules, formal logic only more so. By a strange coincidence, it happens that, in the main, the limits that Dr Schiller has laid down for formal logic, as a final jibe against its validity and usefulness, are similar to those which I have myself laid down in all seriousness; and, what is more striking, I have, with a considerable consensus of agreement from mathematicians, shown that the same principles apply also to mathematics. Mathematics is also capable of degenerating into a game; and the mathematicians also are subject to the same vice of mistaking their conceptualism for objective reality. If I may take the liberty of adding myself to Mr Alfred

Sidgwick as a consistently formal logician, I would say that I am quite content that the formal logician should 'confine himself strictly within the formal limits he has marked out for himself and must not pronounce upon those logical topics which involve a knowledge either of material truth or of human psychology.' Dr Schiller's admission, however, grudging as it is, is an answer to the passage I have already quoted, asserting that such an abstraction and limitation is not possible.

Another point that we cannot grant to Dr Schiller and the pragmatists concerns the nature of axioms rather than that of reasoning itself. There has always been, as Dr Coffey, following the schoolmen, points out, a fallacy arising from the unnecessary multiplication of axioms, but it is on the nature of the axioms themselves that the battle with the pragmatist must be fought. The formal logician holds a view which differs fundamentally from the pragmatist concerning the nature of axioms. If once we grant the existence of axioms which are, as we may call it, given, we supply a solid foundation on which formal logic can build. If once we admit psychology into the sphere of axiomatic truth or within the process of reasoning itself, not only formal logic but reason itself crumbles into nothingness and futility.

The foregoing remarks are a necessary preliminary to a consideration of the development of the study in recent years. In spite of the interest shown in the development of the science of logic, not only by experts but by the amateur philosopher and by the general public, we are bound to note that, in the opinion of at least one expert fully competent to judge, the interest is mistaken and misleading, and that, for the advancement of knowledge, it would be better if the whole fabric were swept away. To those who agree with him there is little left to discuss. And, while it is fully possible to allow that many detailed criticisms on the content of the current logic are sound, we can only reserve any scope for logic by disagreeing with his general standpoint and with his fundamental diagnosis.

In order to retain logic as possible or desirable, we are bound to assume that there are valid forms of reasoning, and that, in so far as we reason in valid form,

we may or may not obtain material truth, but we do obtain conclusions which are undeniably implicit in the premisses we adopt. Let us take a well-known example. Euclidean geometry starts with certain postulates and axioms. Recently, other geometries have arisen, and in these systems the axioms of Euclid are varied in certain particulars. A body of conclusions follows which is wholly at variance with those of ordinary geometry. The angles of a triangle are no longer equal to two right angles; parallel lines meet; and we need only to travel far enough in one direction to return to the point from which we started. It is in considerations of this kind that the concept of formal validity arises. There may be, and indeed is, some dispute whether Euclidean or non-Euclidean geometry is materially true. Such a dispute does not, to anyone but an expert, sound very sensible, but it has, in fact, occurred. But one thing is beyond dispute. Euclidean and non-Euclidean geometries cannot both be materially true, cannot both refer to perceptual space. Yet there is no doubt of the nexus which connects each form of geometry with its premisses. How can this nexus be explained unless we admit an abstraction of form from matter? To discuss this point fully would require the whole of the space at our disposal, and would, moreover, be somewhat uninteresting to the general reader. We must, therefore, without full discussion, assume that Dr Schiller is wrong and state our disagreement with him as to the fundamental axiom of logic. Dr Schiller would call it a postulate, and, as, in his view, there is small distinction between the two, we will take as our fundamental logical postulate that we can abstract form from matter and that formal logic is, at least, a theoretical possibility.

With this assumption, there is still room for dispute as to whether the theoretical possibility is an actuality. There is still the battle to be fought concerning its degree of utility, actual and potential. The existence of logic, *per se*, does not necessarily imply that the Aristotelian syllogism is its best representative. But our postulate does at least imply that, if contemporary formal logic is inadequate, the remedy is further advancement and research, not the obsolescence of the whole study.

The potential importance of the study is increased by a view which, though it is not easy to assign it to any particular logician, and though it has not reached some of the current text-books, has become almost a commonplace among logicians. There has been, since the days of Mill, much loose talk concerning inductive logic and inductive reasoning. Such discussions are based on a misapprehension. It is becoming more and more fully recognised that there is only one form of reasoning, deductive reasoning, and only one form of logic, properly so called, deductive logic. In scientific enquiry, experiment and observation there is much else than reasoning properly so called, but, *in so far as the scientist reasons*, he deduces, and the method of his reasoning comes within the sphere of ordinary formal logic. To this extent the logic of thought and the logic of science are identical. The rightful extension of logic, now called methodology, consists, or should consist, of the study of scientific method, especially those aspects which are additional to reasoning properly so called. But the rise of scientific studies should, in theory, make the significance, though not the scope, of logic greater rather than less.

The most important of the somewhat numerous extant logical forms is the Aristotelian syllogism. Of recent years it has been the occasion of many attacks, much attempt at extension and improvement, endless discussion and criticism, yet, in spite of all, it holds the field. On this point, the two critics of formal logic cancel each other. Dr Mercier's criticism is mainly a spirited attack on the syllogism as a logical form and an attempt to displace it by others. But Dr Mercier, though he does not carry it out in practice, upholds, in the main, the ideal of formal validity. He is by no means consistent in so doing. Here and there throughout his volume occur attempts to use the pragmatic catchwords and to refer to the purpose of the argument. But such reference is not consistent with the main trend of his argument. In so far as he is attempting to found a new logic of deduction he is merely trying to substitute one variety of logical inference for another. This aim is diametrically opposed to Dr Schiller's attack on the ideal of formal validity. It is well indicated by his own illustration. Modern geometry (not metageometry), in so far as it

has displaced the old Euclid (the change is neither so widespread nor so final as Dr Mercier thinks, and the advantages are somewhat dubious), is but the displacement of one mode of formally valid geometrical proof by another. The premisses and the conclusions in both cases are identical; it is only the order and method of exposition that is changed. The illustration enables us to put the syllogism in its place, and to defend it both from those who claim too much for it and from those who publish spirited and not very well-informed attacks. The syllogism is a mode of deductive inference. In addition to having the advantage of tradition, authority and two thousands of years' teaching and discussion, it is a form in which every valid argument can be expressed. Even Dr Schiller regards the syllogism as a great discovery. He may be understood to say that he objects to formal logic on principle; but, if he admitted the principle, he would give a high place to the syllogism.

It is on this account that the old-fashioned exponents of logic, so ably represented by Dr Coffey, who uphold the scholastic tradition, can so easily defend it against modern attacks. They have a well-established logic which works. Their weakness lies in the danger that they are inclined to make extravagant claims and to say that they have the only possible logic. It is correct to say that we can always, if we wish, express valid reasoning syllogistically. It is incorrect to say that we always naturally or necessarily reason in syllogisms. The syllogism is an admirable mode of testing the formal validity of inference, but it does not follow that the mind, in inferring from premiss to conclusion, naturally adopts that form. The modern representatives of the schoolmen must abandon such a claim. Mr Bradley expressed the idea clearly and epigrammatically many years ago. He showed, and his argument has never successfully been controverted, that we cannot and do not reason directly from particulars to particulars. All reasoning takes place through a universal, stated or implied, true or false. The syllogism is thus in accordance with modern philosophical theory. But it does not follow that the only possible, or the natural, or the clearest, or the most convenient, or the truest universal is the major premiss of a syllogism.

This explanation enables us to describe and to classify modern attempts to extend, improve and reform logic. When we have adopted the position indicated here, we are prepared for alternative, and not necessarily mutually exclusive modes of deductive reasoning. If Dr Mercier or anyone else has discovered other valid modes, they should receive careful study and criticism. But, immediately we adopt the standpoint that the syllogism is a form of reasoning nearly all Dr Mercier's criticisms are invalidated. They amount to the assertion that the rules of the syllogism do not apply to forms of reasoning which are not syllogisms, which is equivalent to saying that the rules of cricket do not apply to football. In Dr Mercier's volume, embedded in much other matter and some irrelevant discussion, there is an attempt to put forward an alternative formal logic. On the merits of the attempt, as space will not permit full discussion, it will be well to express no opinion. It will not be amiss, however, to commend to the notice of the author the well-known philosophical principle that we always reason through a universal, together with the corollary that, in formal reasoning, it is a great desideratum that the universal should be explicit. The main value of Dr Mercier's incursion into the sphere of the logician, however, will probably be found in the fact that he has given prominence to the idea that the syllogism is not the only possible valid form.

The exponents of symbolic reasoning have been somewhat more successful in the attempt to discover other valid modes. In symbolic reasoning a complicated system of signs is substituted for connotative terms. Symbolic logic has now a literature of its own, of which Dr Shearman's book is but the latest example. To the uninitiated, unfortunately, a proposition in symbolic logic is as unintelligible as a treatise on differential equations. Yet, Dr Shearman's exposition is fully in harmony with the conclusion we have just expressed. He is emphatic in stating that symbolic logic is not a peculiar kind of logic, but is merely an indication of the fact that the substitution of symbols for words in some respects renders the process of deduction simpler. Moreover the attempt of the symbolic logician, to a large extent successful, to find a common denominator for

mathematical thinking and ordinary thinking is an interesting modern development.

But symbolic logic, in its present form, labours under the defects of its qualities. That it is merely logic in another form well illustrates the possibilities of development of this unpromising subject, and shows us how future study may modify and improve it. But the form is not such as to render it a possible substitute for the syllogism. That a complex and intricate system of signs is a necessary preliminary to the understanding of the process of reasoning is a proposition no one would defend. And since symbolic logic is, after all, merely logic, its complexity, the intricacy of its formulation, is not only a hindrance to popular understanding but a sign of philosophic immaturity. Other things being equal, simplicity is preferable to complexity. Some purposes may be better served by symbolic logic, but, unless great simplification can be achieved, it can never be more than a toy in the hands of a certain type of mathematician.

In spite of all criticisms, extensions and discussions, it still remains true that the essence of logic, properly so called, is the old syllogistic logic. Recent work has enabled us, to some extent, to understand better what this old-fashioned logic really means, but it has not displaced it. Yet the old logic has never thoroughly acclimatised itself in modern thought, philosophy and education. The mediæval schoolmen used it, understood it, and built round it a philosophy. To the opponents of logic it is a reproach that, in its present form, it is but a remnant of mediævalism. A more serious reproach is that it is but a remnant. Certainly Aristotle preceded the schoolmen, but then the philosophy of Aristotle cannot now be authoritatively taught. Some would say that, if authoritatively taught, it is not philosophy. In any case the criticism applies. Aristotle's logic is but a fragment and a remnant torn from its context in Aristotle's philosophy, and the context can never again be built round it. The philosophy can only be taught and appreciated historically. The logic is not logic unless it is true in an entirely different sense. Thus it happens that, to see logic at its best, we must see it in its old setting. In the setting of scholastic philosophy

it has a higher educative value than it can have elsewhere. And we must express our indebtedness to Dr Coffey for giving us the nearest approach to the treatment of the schoolmen that is possible under modern conditions. In the training of the Catholic priests under Dr Coffey's care modern science has little or no part. They must make the best of logic for rigid mental training, and they do. But it is their distinctive philosophy, which crops up continually even in a text-book, that gives to the logic its main value. We may agree or disagree, but logic as taught and understood by the modern schoolman is clear and educative. The subject is regarded from the standpoint of a definite philosophy which is taught almost as authoritatively as the logic, and this gives the logic a value of its own.

Let us take as an example the question whether or no the syllogism is a *petitio principii*. All men are mortal, Socrates is a man, therefore Socrates is mortal: so runs the syllogism. Have we already presupposed that Socrates is mortal when we say that all men are mortal? Dr Coffey says there is no *petitio principii*. The major premiss asserts not that every individual man is mortal, but that man, as such, is mortal. 'This judgment embodies a necessary truth: that the nature of man, being composite, is subject to dissolution of its component parts, i.e. subject to death, mortal.' We form this conclusion 'quite independently of any information about unexamined individuals.' The modern empiricist and many others would raise all kinds of objections to a statement such as this. But the objections do not matter. The schoolman has his own philosophy, and heretical philosophers are no new phenomenon. The manner in which the moderns, who have such weight in the outside world, are discussed in a few words and put aside is, at least, instructive. Kant, Hegel or Mill, or the pragmatists, it does not matter. Scholastic philosophy has outlived many such. Empiricism and idealism both are wrong. The particular is real and existent, and the universal is real also but has a different kind of reality. The proposition, 'man as such is mortal,' refers to a real thing, not to an abstraction. What is man apart from individual men? It would be instructive to write an essay showing the multitudinous fogs that

varied schools of philosophers would raise round this question. But the modern schoolman answers this question very simply through his faith in the faculty of reason, and in the reality of the data which we may say are 'given' to the faculty. And the peculiar philosophic setting, whether or no it possesses the value the schoolman thought and thinks, is at least very near to common sense and will hold its own with any other. When all is said it shows up in a not very flattering light much of the multitudinous discussion of modern philosophy. And it is in a setting like this that syllogistic logic really finds its home.

But, in our modern, or, shall we say our modernised universities, logic can be described by the old and apt illustration of a dark horse in a loose box. Since the schoolmen lost control of the Universities, it has never really fitted into any organic scheme of instruction. It has, of course, its place in various courses of philosophic training, but it is in them rather than of them, and has never formed a real integral part of any philosophy; hence the attacks! And its very existence in a university training is now a matter for discussion. Without agreeing with Dr Schiller in theory, there is something to be said for him in practice. In theory, a formulation of valid modes of reasoning should be of the utmost value; in practice, no one is satisfied.

It is the general dissatisfaction with formal logic as a study and as a branch of philosophy that accounts in great measure for the development known, for lack of a better name, as metaphysical logic, of which Dr Bosanquet, following Mr Bradley, is the most prominent representative. Dr Bosanquet's volumes are certainly entitled logic, but the formal logician, in reading them, will find the ancient landmarks gone. The student is here supposed to have learnt ordinary formal logic and probably forgotten it. The contrast between Dr Bosanquet's treatment and that of the scholastic logician is very great. Scholasticism is a philosophy in which syllogistic logic fits well as an integral part. Metaphysical logic of the Hegelian school seems rather to attempt to displace it. The old laws of thought on which logic is built are discussed at great length, but the educative value lies in the discussion in the attempt

to analyse the fundamental principles which the schoolman, and the average man, take for granted. If this is done by a man of broad views, wide insight and philosophic temperament, the study that emerges is bound to have some value. The treatment illustrates well the Oxford type of teaching. The views asserted do not matter much. What does matter is the treatment, the discussion, the mode of inducing the reader or the pupil to think for himself. An Oxford teacher will read a paper on, say, psychology. A critic will make comments intended to undermine the foundation of the whole science. But the criticism is of no avail; the teacher will only agree with you. 'Psychology is a most potent form of philosophical error,' he will reply, and will go on to talk about something else. Metaphysical logic runs on similar lines. A syllogism is a mediate judgment, as distinguished from an immediate judgment. What is judgment? A flow of calm reasoned philosophical discussion will follow, in an attempt, not to answer the question, but to throw some light on it. It is a kind of subtly implied pyrrhonism. The views you hold do not matter much, but you must be able to reason about them carefully and to expound them clearly. In that way faculty is developed.

The old-fashioned laws of thought—Whatever is, is; etc.—seem obvious enough. To the average man they do not appear to require lengthy exposition. But that is only because the average man does not go deep enough. Mr Bradley and Dr Bosanquet will discuss them at length. Miss Jones' little volume is another example of this kind of discussion. But it must be understood that there is, in all this, very little in the way of positive contribution to the advancement of logic, in the commonly accepted sense of the term. Metaphysical logic is probably a phase, and, in its way, can be regarded as a more subtle, but, perhaps on that account, more deadly attack on ordinary formal logic than Dr Schiller's incisive and bitter criticisms. It represents an obsolescence rather than a development of the old logic. If we are to take logic seriously as a science like mathematics, which develops from the ordinary rudiments without falsifying or displacing them, most of the metaphysical logic must be ignored

as a side-issue. We can call it, if we like, a philosophy of logic; but logic, in the ordinary sense of the word, it certainly is not.

The future of logic as a science, if it is to have a future, will depend largely on its treatment of science, on the development known as methodology. As we have already stated, there is a sense in which there can be no special logic of science. So far as we reason, in science as elsewhere, our reasoning comes within the sphere of ordinary logic. But the fact still remains that, in science, we have a positive addition to human knowledge within certain limits fixed, continually developing and affecting our whole outlook on life. On the growth and content of science logic throws very little light. This was recognised many years ago; and Mill was the first to make a serious attempt to classify and deal with this extension of human thought. He called his treatment inductive logic; and, though the name and classification are now commonly rejected, his treatment is the foundation of modern methodology. Bain followed along similar lines, and attempted to show in detail how methodological principles applied to a number of special sciences. Jevons continued the tradition, and his 'Principles of Science' was an admirably discursive compilation full of sound criticism of scientific facts and theories.

During the past thirty years, most of the current text-books have included more or less of a section known as methodology, but they can hardly be said to have made any sensible advance on Mill, Bain and Jevons. The work of these three great empiricists was, in its way, admirable, but it was only so as a foundation for a new branch of logical science, not as its main content. In the main, it consisted of abstraction in its crudest form. One of Mill's favourite examples of scientific investigation was the discovery of the conditions which lead to the formation of dew. Is it possible to systematise the methods of trial and error and to show that they are anything more than a blind guess? Mill made the attempt, and his attempt resulted in the formulation of five classic methods of inferring from effect to cause. Once again, the old Aristotelian scheme and logic of classification was hardly applicable to modern thought

as modified by evolutionary ideas. Aristotle was a great philosopher who successfully controverted the errors of his predecessors. One of these errors was evolution. Consequently, when science was modified by the discovery of organic evolution, some addition to the philosophy of classification was required.

But the early empiricists, notwithstanding their ability and enthusiasm, were responsible for a number of errors, which more recent writers have exposed and discussed. As a final blow, the recent and now widely-held view that there is no special inductive logic has necessitated further modification of their work. Nevertheless, when all criticisms have been made and all errors pointed out, it is still true that such work as they did, or what is left of it, is the main content of what we may popularly (though it is not accurate academic terminology) call the logic of science. The newer school of methodologists have criticised and modified it, but have made no sensible addition to its content.

Some recent discussions, however, call for brief comment. It is interesting to note that Dr Coffey entitles his volume, 'an enquiry into the principles of accurate thought and scientific method.' He is emphatic in stating that the main principles of scholastic philosophy are thoroughly in harmony with modern scientific discovery and investigation. The claim should be noted, and it is not my desire to dispute it. Nevertheless no scholastic logician has thoroughly understood or appreciated the principles and methods of modern science. The following passages show, as clearly as may be, the attitude of the scholastic mind toward science, and will explain in some measure the fact that they have made no serious attempt to deal with it:

'Fourthly and finally, the Scholastic method counteracts the narrowing influence exerted on the mind by a constant and exclusive contact with the concrete, positive facts of sense; it nourishes in the soul what we may call the craving for the universal, the desire to grasp the idea in the fact, the abiding law in the contingent phenomenon. . . . Again, the importance attached by Scholasticism to *certain* science inclines its disciple to depreciate the value of the merely *probable* and *provisional*. To the "Scholastic" mind, the slowness of experimental work is irksome; it easily becomes

impatient of the problematic character of most historical, sociological, political and economic inductions, and of the many reserves with which the materials of the special sciences must be employed. But, while it is very right and proper to seek for certitude, and very praiseworthy to look for demonstrative reasons, it is wrong to expect the impossible; where certitude cannot be had it is unreasonable to demand it' (Vol. II, pp. 20, 21).

With regard to this passage and the ideal which it puts forward, we must be emphatic in dissenting from Dr Coffey if he asserts that there is, in scholastic logic, any considerable content which can be described, in his sense of the word, as certain knowledge. In the sphere of his religion, no doubt, the schoolman can put forward a powerful case for maintaining that he has certain knowledge; but, even if we grant this, there is no logical or philosophical ground for asserting the existence of such certainty outside that sphere. The idea is the one so beautifully portrayed in the dialogue between Socrates and Glaucon, a truth in reason that is over and above the truth of every-day life. We cannot here discuss such metaphysical questions, but we must assert most strongly that in the study of scientific method, the idea is entirely out of place. In logic, there is no certain truth, unless we refer to a few fundamental axioms which are not specially logical. Logic only deals indirectly with material truth in any shape or form. To state the matter in modern terminology, the only certain truth is, not the proposition, but the propositional function, A implies B . There is no certain material truth, in this sense of the term certain; and the certain formal truth can only be applied to perceptual reality with varying degrees of probability. To confine oneself to certain truth is to detach oneself from all concrete reality. The problem of certain truth, of the iron rigidity of logical implication, is a real and an important one. The pragmatist philosophy fails largely because it does not appreciate the significance of this side of things. But the sphere of science and of ordinary life is the sphere of the concrete, the probable, the provisional. And no treatise can rightfully be called a study of scientific method which does not deal with the problems of the probable and

the provisional, clearly, fully and explicitly. Scholastic philosophy may be in harmony with modern science, but it has done nothing towards elucidating the philosophy of scientific method.

The above remarks, however, enable us to show what is required to supply an efficient and a valid methodology. In logic and in mathematics the reasoning faculty advances surely and certainly from premiss to conclusion. But in so doing it is 'in the air.' Whether or no the conclusion is materially true can only be determined empirically; and it is this empirical fitting which is the sphere of natural science. It is the application rather than the reasoning which is the subject-matter of methodology. And immediately we reach this sphere, certain truth, formal validity, vanishes into thin air. We are in the region of varying degrees of probability.

And then we find that the formal reasoning process is of less and less significance. The essence of scientific investigation is, not the deduction of conclusions, but the search for premisses, and the empirical determination of the degree of applicability of the premisses which are provisionally adopted. On this side practically nothing has been done, either by the schoolmen or by anyone else. The modern schoolmen are not alone in their verbalism and futility.

Since the time of Mill, methodologists have discussed Mill and Whewell; and, when the discussion became somewhat tedious, they have discussed each other. Present-day methodology, like metaphysical logic, is a confused medley. The avowed aim of most methodologists is to throw light on the nature of knowledge. But then there is nothing to differentiate methodology from epistemology and metaphysics. It is not allowable, on that assumption, to use a name implying that it deals with scientific method. Indeed Dr Bosanquet, the ablest and most prominent of this school of writers, although in his book are to be found most of the discussions commonly classed as methodology, is strictly consistent in that he has no division specially devoted to the subject. Science, from the metaphysical standpoint, differs in no essential respect from the common knowledge of everyday life. But other writers are not so

modest; consequently methodology is a recognised subject in courses of philosophical training, and is of such a verbal and abstract character as to be almost beneath criticism. To find a number of points in connexion with the concepts of science which can be discussed without unduly exposing the fact that you may be, and probably are, without adequate knowledge of the subject-matter, and then to discuss them at length, seems to be the *modus operandi*. Thus it happens that Dr Schiller is able to level the taunt that the principles of scientific method are not taught to science students, because to do so would only delay their progress. In the present state of thought and teaching the remark is unanswerable. At any rate the facts are as stated. The universities do not teach the principles of scientific method to science students.

An interesting side-light is thrown on the subject by a study of the new Encyclopædia. Methodology occupies considerable space in this compilation. Professor Royce goes so far as to say that methodology is a science of which formal logic 'is but a part, and, in fact, a very subordinate part.' In theory there is something to be said for such a view. It is certainly correct to say that, in scientific investigation, abstract reasoning is a very subordinate part of the whole process. It would naturally follow that a methodology which makes a serious attempt to deal with problems of science, the manner of their solution and their interpretation, would constitute a bulk of knowledge in which formal logic would occupy a subordinate place. But, in practice, where is the methodology into which logic could fit?

Our conclusion, therefore, must be to bring to the notice of the exponents of methodology a few obvious facts which seem to have been overlooked, and a point of view which will appeal to every common-sense mind. The past few centuries have witnessed the slow and ordered growth of a huge body of facts, theories, inferences, speculations, designated modern science. The development is not altogether new. Nevertheless, the growth of this body of knowledge, during the past century, has been unprecedented. Many of the great fundamental discoveries—the foundations on which it all rests—date further back, but the present century has witnessed their immense development. The body of

knowledge so called is by no means all fact; it is by no means all certain and authoritative. The blunders and errors that pass current as science at one time or another are, perhaps, more stupendous than any others. But science, as a whole, is an ordered growth. The development of a certain point of view and of certain methods of research has produced a result of vast significance.

Of this development, modern philosophy seems to be entirely ignorant, and modern so-called methodology gives a very incoherent account. The old logic, in the days of its great founder, attempted, and to a large extent succeeded in formulating a means of checking the fallacies of popular reasoning. It gave a clear account of valid reasoning; it exhibited the flaws of invalid reasoning. It made the student better able to distinguish between truth and falsehood, proof and fallacy. It was of service to the man who desired to reason correctly. A methodology which is to be valid and useful should do for science what logic did for reasoning. The methods adopted in science—experiment, observation, hypothesis and so on—are even more liable to error than the process of formal reasoning. The man of science, in using his methods, does so, in the main, instinctively and without philosophic guidance. Is it possible for the philosopher to formulate his principles in such a manner as to be of value to the man of science, to be of service in enabling him to discover scientific truth and avoid error? The relation I am attempting to express is well illustrated by a somewhat trite analogy. It should resemble the relation between theoretical mechanics and practical engineering. The exponent of theoretical mechanics does not attempt to tell the working engineer how to build a bridge. But, if the working engineer were in no way more competent by reason of his study of theoretical mechanics, the latter science would indeed be a mass of theoretical futility. The same remarks apply to methodology. If the logician can throw no light on the problems of practical science, if, as is the case, the man of science is rendered in no way more competent to solve the problems of scientific research by a knowledge of methodology, if it is not worth his while to study it, methodology is either in a very rudimentary state or is a hollow sham.

There are two possible lines of development for the logic of science. One is an advance and improvement so that it may have some bearing on matters scientific and may aid the understanding of the wider aspects of science. The other is its deletion from the field of philosophic thought. If it is merely another aspect of the logical and philosophical desire to elucidate the nature of human knowledge, it is merely metaphysics; and no special section relating to science is required. On this assumption there can be no logic of science.

The trend of the present essay will leave no doubt which of the alternatives commends itself to the reviewer. But the view here implied is one that has received small support in the philosophic world. If, however, philosophers, actively or passively, oppose this view, if they are doubtful about its theoretical validity and opposed to attempts to carry it out in practice, there is no defence from Dr Schiller's attack. With this open alternative we must leave the matter. Actually and practically there is no methodology, no logic of science, worthy of the name. Is it possible to formulate such a study, or should philosophers abandon the attempt as mistaken in theory and impossible in practice?

H. S. SHELTON.

Art. 7.—SYPHILIS.

1. *Conférence Internationale pour la prophylaxie de la syphilis et des maladies vénériennes*, 1899. And *IIème Conférence Internationale, etc.*, 1902. *Rapports publiés par le Docteur Dubois-Havenith*. Five vols. Brussels: Lamertin, 1899-1900 and 1902-1903.
 2. *Transactions XVIIth International Congress of Medicine*. London: Frowde, 1913. Section xiii: 'Dermatology and Syphilography.' London: Frowde & Hodder & Stoughton, 1914.
 3. *Le mal français à l'Epoque de l'Expédition de Charles VIII en Italie, d'après les documents originaux*. By Hesnaut. Paris: Marpon et Flammarion, 1886.
 4. *Der Ursprung der Syphilis: eine medicinische und kulturgeschichtliche Untersuchung von Dr. med. Iwan Bloch*. Two vols. Jena: Fischer, 1901-11.
 5. *Report on Venereal Diseases*. By Dr R. W. Johnstone, with Introduction by the Medical Officer of the Local Government Board. London: Wyman, 1913.
- And other works.

THE grave danger to the national health arising from the prevalence of the disease known as syphilis has of late forced itself insistently on the attention of the public. Much discussion upon the subject has taken place in the press; and a Royal Commission has recently been appointed to enquire into it. The stage has produced—privately, it is true—'Les Avariés' of Brioux in English dress under the title of 'Damaged Goods,' a play which has been well known on the Continent for some years. Ibsen dealt with the same matter in 'Ghosts,' which was published in England a long time ago, though it was not given on a public stage. 'The Great Scourge and how to end it' has been issued from the woman's suffrage point of view. Moreover, at the International Congress of Medicine last year, the subject of syphilis was prominently discussed and fully reported. In the face of all this, it is important to view the subject in its proper perspective and try to handle it in as calm a way as possible. A matter of such general importance to the community cannot be left entirely to the medical journals, nor to the sociologists and the eugenisists alone; it is for the nation at large to inform itself and to judge

what, if any, measures can be taken to control so great a plague. If any success in this direction is to be achieved, it can only be by a reasoned and a national effort; and the first and indispensable condition of this is full and accurate information. This we may hope eventually to obtain from the report of the Royal Commission, but meanwhile it is desirable that the public mind should be prepared and should fully realise the importance of the matter. It is on this account that, from a sense of public duty, we venture to handle the subject, repulsive as it is, in the pages of this Review.

There is no doubt that, although syphilis had been apparently observed in Spain and France for a year or two before the entry of Charles VIII into Naples in February, 1495, the sudden and terrifying explosion of the disease on every hand was the result of this expedition. In May, 1495, after sacking the city, Charles VIII and his army of mercenaries made their way back from Naples to France. The disbanded troops scattered in various directions and spread the disease wherever they went, along the road and in their native towns and villages. When one realises the promiscuity of the sexes, the overcrowding and wretchedness of the dwellings, the convivialities and merry-makings of those days of the *quattro- and cinquecentos*, it is not surprising that such a disease as syphilis should have become epidemic—nay, apparently pandemic. In this connexion it must not be forgotten that infection results not only from cohabitation, but also accidentally, as for example by kissing or in passing the loving cup. The disease may find its way into the system through various parts of the body.* At the present time, in some of the more primitive areas of Europe, in Russia for instance, house-epidemics of syphilis are not uncommon. On this point a Russian expert states that 'By spreading mainly—in over 70 per cent. of the cases—by extragenital infection, syphilis in the rural districts often remains untreated for ten or more years, by reason of purely local conditions.' These accidental infections have been named by some medical writers, syphilis of the innocent

* Pernet, 'A Lecture on Extra-genital Chancres' ('Clinical Journal,' No. 908. Mar. 23, 1910).

or *syphilis insontium*—unfortunately, for such a label would imply that the disease in other instances was a syphilis of the guilty, a distinction which is quite outside the purview of medicine.

But to return to the disbanded mercenaries. An examination of city records and the printed works of the early part of the 16th century shows the coincidence of the appearance of the disease with the return of the soldiers from the Italian war. In an old chronicle, 'Sejours de Charles VIII et Loys XII à Lyon sur le Rosne,' the following occurs :

'En ce mesme temps vindrent en France plusieurs des gens du roy, lesquels avoient une manière de maladie que aucuns appelloient la grant gorre, les autres la grosse vérolle, et aucuns la maladie de Naples, à cause que les Français venant de Naples en estoient malades, dont on fut bien esbahy en France, et disoit on que les Lombards avoient este inventeurs de ceste maladie pour se venger des François.' *

It should be noted here that there were many prostitutes in Lyons,† and 'Lyonnaise' was a term frequently used to designate a courtesan. A number of these women followed the army to Italy on the passage of Charles VIII through that city ; and no doubt survivors returned to their native haunts, not only in Lyons but in other places, thus disseminating the disease broadcast. In Germany the Emperor Maximilian, whose troops had fought side by side with the Milanese and Venetian army, issued an edict dated from Worms, August 7, 1495, in which the new disease is referred to as 'novus ille et gravissimus hominum morbus nostris diebus exortus, quem vulgo malum Francicum vocant, post hominum memoriam inauditus.' As to Switzerland, all the chronicles point to the disease as having been introduced by the mercenaries from the Italian war of Charles VIII. In England, Andrew Boorde, in his 'Breviarie of Helthe' (1567), says that 'in English Morbus Gallicus is named the French pocks ; when that I was young they were named the Spanish pocks.' Boorde was born about 1480. It would appear, therefore, that syphilis may have been

* Potton, 'De la Prostitution, etc., dans la ville de Lyon, 1842,' cited in Bloch's 'Ursprung der Syphilis,' i, 262 n.

† See Erasmus in his dialogue on Inns (Early 16th Century Account).

brought direct to England by Spaniards a year or two before the siege of Naples. Grünpeck, an early writer on the subject, states that English mercenaries fought in the Italian campaign.

Suffice it to say it appears clear on the evidence that the disease was brought to Europe from the Caribbean Seas by the companions of Christopher Columbus. After the siege of Naples, syphilis not only spread through Europe but also invaded the African boundaries of the Mediterranean, and thence extended to other contiguous portions of that Continent by means of petty wars and slave raids. Asia was apparently infected by foreign navigators—Spaniards, Portuguese, Dutch, English and French, and not the other way about, as has been, and is still maintained by some writers. It has been held that syphilis is as old as the Asiatic civilisations and came from the East, and that the disease was known to the ancient Greeks and Romans. This opinion is losing ground, notwithstanding the efforts of those who have examined the Latin poets, for instance, from that point of view. 'On trouve ce que l'on cherche,' but the proofs put forward are not convincing. Recent anatomical work on mummies in Egypt has not confirmed the antiquity of syphilis in that region; * nor has the examination of the Ebers Papyrus.† At one time China was looked upon as the cradle of the infection, but here again recent investigation by a Japanese gives no support to that opinion.‡ Indeed the result of this research has been to show that the disease was brought to China and Japan by European, i.e. Portuguese, navigators. More recent navigators, the Spaniards, who sailed their galleons on the Pacific, and Bougainville and Cook among others, infected many of the islands of the South Sea. An English writer of the early 19th century, J. Bacot, went very thoroughly into the question of the antiquity of syphilis, and expressed himself in the following terms:

'Surely I may be allowed to say that, if there is any single

* Armand Ruffer and others: cf. Ruffer, 'On arterial lesions found in Egyptian Mummies (1580 B.C.-526 A.D.).'

† Joachim, H., 'Papyros Ebers. Das älteste Buch über Heilkunde,' 1890.

‡ Tatsuhiko Okamura, 'Zur Geschichte der Syphilis in China und Japan.' 'Monatshefte für prakt. Dermatologie.' Band xxviii, p. 295, 1899.

historical fact that can be said to be proved, it is that of the origin of syphilis being referrible to the latter years of the fifteenth century; for I cannot understand otherwise why, at that precise period, we all at once hear of [the well-known symptoms], followed speedily by excruciating nocturnal pains, by corroding ulcers over the whole body, by affections of the throat and nose, and very frequently by death; when not one word, that can be construed into any similar affection, is to be met with distinctly stated by any writer before that period.' ('Medical Gazette,' Vol. II, 1828.)

All one can say is that syphilis appears to have originated in the West Indies, so far as Europe is concerned. There are writers, however, who still maintain a pre-Columbian origin and assert that syphilis prevailed from time immemorial in the East and during the civilisations of Greece and Rome.

At all events, one great fact stands out, viz. that the dreadful disease, which attacked European countries immediately after the Italian war of Charles VIII, was something new. Writers of that period are unanimous on that point. The medical men of the time were taken by surprise by the fell and destructive complaint, which played havoc round them all the more because it was attacking fresh soil. But for other good reasons too, when war and famine were abroad, and typhus, malaria and other maladies were prevalent, the picture of disease must have been very complex. Another factor, in my opinion, was the verminous condition of the people. Vermin and the itch, the latter especially, complicated many cases of syphilis, and must have led to an objective state of things of which medical men of the present day can have but little conception. So dreadful was the sight of some of the victims that here and there the doctors refused to touch the patients. From what one can gather, reading contemporary accounts, the people and authorities were panic-stricken. Few apparently were spared, from kings, princes, dignitaries of the Church, and nobles downwards. Francis I of France and our own Henry VIII apparently did not escape.

A notable contribution to the literature of syphilis is that of Fracastorius of Verona, born in 1483, who wrote a long poem in the usual heroico-epic style of those days. He it is who is responsible for the present name of the

disease, which appears in the title: 'Divinum illud syphilidis sive de morbo gallico Poema.'* The poem, apart from its mythological, astrological, and theological divagations, which were the fashion of the period, gives a fair account of some of the manifestations of the disease. Fracastorius insists on the terror which the complaint inspired. He, like the other medical writers of the time, emphasises the fact that the disease was unknown until then. Medical men were taken unawares by its sudden appearance. Another poem, 'Le Triumphe de treshaulte et puissante Dame Verolle, Royne du Puy d'Amours' (1539), deals with the subject of syphilis, and is illustrated by woodcuts, showing the great interest that was taken in the subject. Nor must we forget that Rabelais insists on his 'vérolés très précieux,' to whom he dedicated his Gargantua and Pantagruel: 'Beuveurs tresillustres, et vous Verolez très précieux, car à vous non à aultres, sont dediez mes escriptz.' In our Elizabethan writers, the expletive 'A Pox on you' occurs again and again; and Shakespeare's 'Down with the nose, down with it flat' ('Timon of Athens'), refers no doubt to syphilis; as may also 'Such an ach in the bones, that unless a man were curst, I cannot tell what to think on't' ('Troilus and Cressida'). As to Villon, who dates from just before the time of the appearance and spread of the disease, I have not noticed any reference to syphilis in his poems. Had 'La grosse Vérolle' been frequent in his day, surely the author of 'La Ballade des Langués envieuses' would have mentioned it. I do not think this is a point that has been noted before, but negatively it counts for something. True it is that Villon refers to *chancre* in this ballad, but the word was used for destructive ulcers generally.

At the present time syphilis is practically universal. All through the East syphilis is widespread. With our present means of communication, human streams are constantly reticulating the surface of the globe, a fact which makes stamping-out quite impossible, though this is frequently lost sight of by reformers and sociologists whose stereotyped mental attitude blinds them to the magnitude of the evil and the many difficulties of the problem.

* Making use of the legend of Syphilus, a shepherd who tended the herds of King Alcithoüs.

The names given to the disease in the various countries would make a long list. But a noticeable point is that the origin was always attributed to a neighbouring nation. The French called it *le mal de Naples*; the Italians, *mal franzoso*; the English, the Spanish Pockes and French disease. Erasmus, in one of his 'Colloquies,' that on Inns, states that many of the guests had contagious secret diseases. 'Most of them,' he adds, 'have the Spanish disease, which some call the French disease, though the complaint is common to all nations. Such people are not less to be feared than lepers.' In Spain, one of its designations was 'mal de la Isla Española,' the Hispaniola of early writers, San Domingo or Haiti, discovered by Columbus in his first Atlantic voyage. In Asia, there were various names among the natives for it, such as Bede-Frangi, Canton ulcer, the Portuguese disease, phiranga roga, pointing to a Frankish origin. In the Maghreb of North Africa (Morocco), one of the names for syphilis is *Hab el Frendj* (the sore or disease of the Franks). Syphilis often went by the names of *scabies* and of *variola*, being evidently mixed up with the itch and the small pox. The French called it 'la grosse vérole' to distinguish it from 'la petite vérole' or small pox. The itch, indeed, is a not infrequent complication of syphilis, though less so than it was, owing to the improved hygiene of modern Europe.

It is not to be wondered at that the advent and unchecked spread of syphilis in the last years of the 15th and the early 16th century struck consternation not only into those in authority, but also into the medical faculty, especially as regarded the less fortunate and the poor. 'Obstupuit gens Europæ ritusque sacrorum contagem alio non usquam tempore visam,' said Fracastorius. The multiformity of the destructive ulcerations and of the cutaneous manifestations must have been appalling even to the stoutest-hearted among the practitioners of physic of the time, when we consider the prevalence of parasitic skin diseases, leprosy* and disfiguring complaints, to say nothing of very contagious conditions such as soft sores and gonorrhoea, which latter, as also venereal warts, were prevalent in the old world, probably

* Cf. Pernet: Article, 'Leprosy' ('Quarterly Review,' No. 394. 1903).

from the earliest historical times. These venereal complaints, soft sores and *condylomata acuminata* (a better name than warts), and perhaps too the occurrence of gonorrhœa and its complications, have no doubt misled many writers into believing that they were dealing with syphilis. As to leprosy, one recent medical author held the curious opinion that this malady was a fourth stage of syphilis. There is not the slightest foundation for such a view, though, to make matters more confounded, one or two writers of the early 16th century attributed the explosion of syphilis to intercourse with leprous women. In this place, however, these diseases cannot be examined in detail, for that would greatly enlarge the scope of this survey. We must be satisfied with limiting ourselves to the subject of syphilis.

We may now deal shortly with the infection in its various stages, touch on its differentiation from other diseases, enquire into its essential causation and the ways in which it spreads from individual to individual, and finally consider it from the social point of view and indicate means of preventing its dissemination.

The first or primary symptom of syphilis is one or more sores usually situated about the external genitalia; but, as already stated, the earliest manifestation of the infection may appear anywhere about the surface of the body or lie concealed in accessible parts of the various anatomical orifices. This latter possibility is one to be borne in mind in the matter of prevention, for it may be overlooked and the disease communicated to others before the lesion has been recognised.

The primary sore is usually accompanied by induration of its base; and this was well known to the early writers on syphilis of the 16th century, long before it was described by our own John Hunter and stereotyped under the name of Hunterian chancre since the end of the 18th century. Apparently induration as a concomitant had been lost sight of, to some extent at any rate, and the great authority of Hunter made it pass among his contemporaries and those who followed as a discovery. But the typical Hunterian sore does not always occur as a result of the inoculation of the disease, for the primary lesion may vary greatly in its appearance, a fact

which may make diagnosis at this early stage of the disease difficult, even now that purely clinical observation is reinforced by microscopical methods. The search for the parasite may prove negative in the earliest local manifestation, when moreover a special reaction of the blood has not had time to exhibit itself. The foregoing remarks show how difficult it may be in some cases to make a positive diagnosis at the very beginning of the first visible symptom. To the observer thoroughly trained in clinical work, however, doubts as to the nature of a syphilitic sore do not frequently present themselves in actual practice. The diagnosis, again, may be harder still in this early stage if a soft sore complicates the syphilis.

I may here insist on the value of clinical training, which runs the risk of being neglected owing to the recent discovery of the parasite of syphilis and of the altered reaction of the blood. The fact is that clinical training, which is arduous and demands a close study of the objective symptoms exhibited by those suffering from syphilis, is more necessary than ever; for the methods of the laboratory, however important, may and do prove fallacious and misleading at times. They cannot take the place of a careful clinical examination of the actual patient. Like the casuist in another sphere, the medical man must take each case strictly on its merits, and from the case before him gather all the facts he can see and feel for himself. This necessarily requires time and patience, and above all real and living knowledge, which can only be acquired by continuous and persevering study, not only of syphilitic manifestations, but of many other conditions too, especially of those diseases which affect the cutaneous system and the lining membranes of the orifices of the human body. It is here especially that one disorder must be differentiated from another, in order to base a diagnosis on a sure foundation and adopt a rational line of treatment.

Although, as we have said, the earliest writers of the 16th century had distinguished the primary sore, later observers confused the various venereal diseases. John Hunter, though he described the sore, threw the whole question into the melting-pot again, leaving it for his opponents and successors to differentiate the various

venereal diseases. In his classical 'Treatise on the Venereal Disease' (1786), Hunter says (p. 13):

'It has been supposed by many that the gonorrhœa and the chancre arise from two distinct poisons; and this opinion appears to have some foundation, when we consider only the different appearances of the two diseases, and the different methods of cure; which in judging of many diseases is too often all we have to go by. Yet, if we take up this question upon other grounds, and also have recourse to experiments, the result of which we can absolutely depend upon, we shall find this notion to be erroneous.'

This was very unfortunate, for Hunter's experiment on himself was most misleading; but, owing to his great authority, the mistaken notion (for it was nothing else) that gonorrhœa and *lues venerea* or syphilis were one and the same gained acceptance in many quarters. In addition to these so-called crucial experiments, he made out a plausible case by other considerations which, though open to critical objections, appear to have carried weight in his time, when authority was more respected than it is now.

Not only was gonorrhœa mixed up with syphilis, but the soft sore was also placed in the same category. It took a good many years to separate completely the soft sore from the hard or true syphilitic sore. But to make matters worse, it was observed that there might be a mixed infection, soft and hard sores being communicated at the same time, and developing independently, first the soft sore leading to local disease and then the syphilitic sore asserting itself and becoming constitutional. This was well brought out by Rollet of Lyons. Needless to say that this was at first denied and opposed, but the fact has now been established for some years. It is an occurrence that complicates diagnosis; and through it the difficulties surrounding the early recognition of syphilis are further increased.

The primary sore of syphilis makes its appearance about three weeks after infection, but there are variations on either side of this period—a point which requires to be taken into consideration. It is followed in about another three weeks by the eruptive stage of the disease; but here again there may be variations as to the length

of the interval. It is in this so-called secondary stage that the skin and mucous membranes become affected. As to the former the manifestations are variable in the extreme. The eruption may be anything from a mild and evanescent rash to very severe and ulcerated manifestations involving the body-surface generally. Not only are the different types of these secondary rashes subject to variations, but they offer a multiformity in the appearance of the individual eruptive elements at the same time. From the point of view of diagnosis, these syphilitic eruptions need to be differentiated from other more or less generalised and quite independent affections of the skin. In this secondary or eruptive stage the glands become involved, as also the mucous membranes. These are the common objective symptoms; but any of the various organs and tissues of the body may be affected, such as the eyes, kidneys, nervous system, and so forth. The blood-vessels are prone to suffer, and (as already stated) the viscera of the body also; in a word, the disease is what is called constitutional. Usually the eruption clears up more or less readily, leaving no objective trace behind; but now and then, in bad cases, ulcerations may follow, especially in broken-down or ill-nourished individuals, leaving scars behind. As has already been said, the itch may complicate the syphilitic rash and thus lead to cutaneous appearances of still greater multiformity, which require to be disentangled; or again secondary syphilis may accompany other eruptive diseases.

The foregoing cursory enumeration will suffice to show the difficulties in regard to diagnosis which surround the protean manifestations of syphilis, and bears out what has been previously said as to the complexity of the subject, which the lay mind can hardly realise. It would take us too far if we attempted to give detailed particulars of the complications met with at this period of the infection; it is enough to say that for a considerable time, especially if the case is not followed up and carefully treated, recurrences and aggravations may occur. On the other hand, notwithstanding the fact that treatment may have been neglected, the results that may follow the eruptive outbreak may be benign, or apparently so, for there

is nothing so deceptive as syphilis. A mild eruption with next to no symptoms may ultimately lead to serious results at a future time, especially if on account of its very mildness a proper course of treatment has not been carried out. In the case of well-to-do and well-nourished persons, leading a healthy open air life, syphilis is more likely to take a favourable course and to give rise to little trouble if properly treated. On the other hand, in the underfed, working at confined and unwholesome occupations and merely existing under stress in unhealthy surroundings, the upshot may be disastrous. This is an important aspect of a complex question, which will be dealt with later when referring to treatment. Among the poor especially, owing to the dire necessity of keeping at work in order to sustain life, treatment is apt to be desultory and inadequate. Regular attendance at a hospital, meaning loss of employment and no bread at home, becomes impossible.

From the point of view of the communication of the disease to other individuals, either directly in the usual way of cohabitation or accidentally or by an infected object, such as a pipe or article of domestic use, this stage offers many dangers. It was not till comparatively recently that the infectiousness of the lesions of the secondary stage was realised, for the earlier view—that syphilis was communicable only by the primary sore—was held by such an authority on the subject as Ricord, whose experiments date from 1831 to '37. His opinion was little by little shown to be erroneous, but this demonstrates once more how slow is the attainment of exact knowledge. As to accidental infection, medical men, dentists, nurses and midwives are specially exposed to this risk in the course of their professional work. More minute knowledge of the modes of transference, and the labours of Pasteur and Lister, have led to a diminution in the incidence of accidental infection, which in earlier days must have been common owing to the want of surgical cleanliness. Such accidental conveyance still occurs among primitive folk, and accounts for much of the dissemination of syphilis among them, as a result of promiscuity and overcrowding.

At a later stage of syphilis, a very great variety of symptoms may occur, and these may lead at times to

difficulties in diagnosis. The complications affecting the brain and nervous system are perhaps of main importance, but once more we must repeat that any organ or tissue of the body may suffer—a point which must always be borne in mind, for some of these conditions are fortunately very amenable to treatment if a correct diagnosis be made, while others may be ameliorated, or at least prevented from getting worse, especially if distinguished in the earlier stages of their development. This shows once more, if that were needed, how essential it is that the subject of syphilis in all its bearings should be systematically and specially taught in our medical schools and post-graduate colleges. Syphilis is a disease which plays a great part in human pathology, and it should be ever present to the mind when dealing with morbid conditions generally, and with obscure ones particularly, especially as well-directed treatment may be crowned with surprisingly good results.

Among the complications of syphilis, general paralysis of the insane and locomotor ataxy stand out prominently. It is only in comparatively recent years that these two conditions have been recognised as being connected with a syphilitic origin. There are still a few observers who either oppose this view or hold it to be non-proven; but every day new facts are forthcoming, which support the syphilitic view, though it may be admitted that other factors may possibly play a part in the development of these two diseases. Quite recently the discovery of the parasite, of which we shall speak later, in the brain tissues and the positive blood reaction of general paralytics afford further proof.

In the East, among native races, cerebral and spinal cord complications of syphilis of the foregoing types are extremely rare or non-existent. On the other hand, in them the ulcerations about the skin may be very severe and accompanied at an early period of the disease by marked affection of the bones and joints, with violent nocturnal pains. One may take it that this Eastern type of syphilis approximates closely to the disease as described by early writers in the years that followed the great outbreak after the siege of Naples, and fits in with the remarks of Bacot already mentioned. Among these native races syphilis is destructive and mutilating; but,

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strange to say, the mucous membranes, the eyes and viscera suffer little.* General paralysis of the insane and *tubercles* (locomotor ataxy) have also been observed, though rarely, in North Africa among the Arabs, but the former only since 1877, according to the figures obtained from the Asylum of Aix—a fact which makes the medical officer in charge express the opinion that general paralysis is chiefly a disease of civilisation.† This receives support from von Düring, a syphilographer who practised for many years in Turkey and incidentally visited Asia Minor professionally. According to him, this comparative immunity of the nervous system is accounted for by the fact that the Turkish populations lead a quiet life without mental strain or excitement, and take the good and evil of life in the true spirit of Kismet.

It has been maintained that the explosive epidemic we have dealt with in the earlier portion of this review was responsible for the intellectual depression and stagnation which followed the period of the Renaissance in Italy. As another result, the fear of the disease operated socially at that time; and the habitual salutation by a kiss on the mouth gave way to the offhand nod or a touch of the gloved hand. In the opinion of Remy de Gourmont, the married state came into favour instead of being ridiculed, and the relations of the sexes became more distant.‡ Erasmus says, 'Whereas public baths were in great vogue twenty-five years previously, they have become deserted owing to the new disease.'§

We may now pass to the so-called heredity of syphilis. The word 'heredity' is generally used in a very loose way. Strictly speaking, the direct heredity of the disease has never been proved. The evidence goes to show that the infection is transmitted through the mother and her bloodstream. If she escapes the infection, so will the foetus and new-born infant. The direct paternal infection idea is losing ground, even in France, where until

* Jeanselme, 'Cours de Dermatologie exotique' ('La Syphilis Exotique'), 1904.

† Raynaud, 'Documents sur le Nord-Ouest Africain,' 1902, p. 143, note.

‡ 'La Culture des Idées,' 5th ed., 1910, p. 224.

§ Dialogue on Inns.

recently its reality was accepted as a matter of course. Strictly speaking, in a biological sense, syphilis does not appear to be any more hereditary than tuberculosis and leprosy. But, if the mother becomes infected, the child is likely to suffer; or, what is more usual, the pregnancy may be terminated at an early period or the child may be born dead. On the other hand, if the mother be thoroughly treated during pregnancy, the chances are that a living child may be born and survive. The fact remains, however, that syphilis may affect the child in the way mentioned; and we have also to recognise the incidence of infantile mortality. In England, we call this infantile condition transmitted through the mother congenital syphilis, which, though not a perfect designation, is certainly in view of more exact knowledge better than hereditary syphilis.*

That the mother of a congenitally syphilitic infant may suckle it herself with impunity was a fact observed a good many years ago by Abraham Colles, a Dublin surgeon. Subsequent study of the matter has supported the correctness of this opinion. But, when a syphilitic infant is put to the breast of a healthy woman, not being the diseased child's own mother, syphilis may be communicated to that woman. This infection has frequently occurred, especially as congenital syphilis in infants exhibits itself about the mouth. Such unfortunate accidents were more common in the days of wet-nursing, which has been replaced in this country by artificial rearing. But in France wet-nursing is still frequently resorted to, and great care is exercised there before an infant is given to a wet-nurse. A thorough examination is also carried out as regards the wet-nurse herself, in order to avoid the possibility of conveying syphilis to a healthy child. The conclusion is that women should not wet-nurse strange infants, nor should healthy infants be confided to strange women for purposes of suckling. If this be disregarded, syphilis may be disseminated in quite a fortuitous way and spread from an accidentally contaminated healthy woman to her own healthy infant

* As to the heredity of Syphilis, see the Monograph of Matzenauer, 'Die Vererbung der Syphilis' (Vienna, 1903); also Pernet, 'Reports of the Society for the study of Disease in Children,' vol. viii, p. 74.

and to her husband, thus creating a fresh circle of infection. Such details demonstrate once more the difficulties in the way of checking the disease. In the days of arm-to-arm vaccination, syphilis was carried from the diseased to the healthy. Nowadays, vaccination as practised with clean sterilised instruments and calf-lymph is safe enough.

The origin of the disease and its essential causation afford a remarkable instance of the growth of science. At the time of the epidemic outbreak of the 16th century, syphilis was looked upon as a punishment sent from Heaven. Another favourite theory at that time was that the dread complaint was due to the malign influence of the stars and planets. The pollution of the air, subtle miasmata rising from the earth under the influence of the solar rays, and other fanciful notions, were set forth in turgid verse. Others attributed the new disease to a transmutation of the virus of other morbid conditions known to be contagious, by analogy with the transmutation of metals. Others again made the *Morbus gallicus* originate from leprosy.* Theophrastus Bombastus von Hohenheim, better known as Paracelsus, believed at least in a connexion between them, regarded the *Morbus gallicus* as a hybrid, and compared the new disease, by analogy, with a mule. There were some medical writers, on the other hand, who kept their heads and studied the disease in a sensible way, without allowing their imagination to run riot. Their conclusion was that syphilis did not arise spontaneously, but was transmitted by one individual to another. Nor did they admit that the disease was conveyed through the air, by 'convection.' This led to the notion that the cause of syphilis resided in some sort of virus arising in the body as a result of the vitiated state of the humours or poisons generated in the human organism.

With the rise of bacteriology and experimental pathology, in recent times, many attempts were made in a spasmodic way by independent observers to discover a micro-organism as the *causa causans*. Not until the problem was tackled in a thoroughly systematic way,

* For further details see Pernet, 'Leprosy' ('Quarterly Review,' No. 394. 1903).

as an end in itself, was success attained. This resulted in the demonstration of a minute corkscrew-like organism in syphilitic lesions,* which was originally called *Spirochaete pallida*, but has been renamed *Treponema pallidum*. Thanks to the ultra-microscope and dark-ground illumination, these spirillar parasites can be studied alive and their movements observed. As a further step, the microbe can be thrown on to a screen and the Archimedean-like progression demonstrated to an audience. Quite recently it has been actually shown to exist in the brain of general paralytics,† an unexpected but clinching confirmation of the view as to the syphilitic origin of general paralysis of the insane.

Another step in the study of syphilis is the blood-test,‡ which, though not absolute but only approximate in its results, affords assistance in some cases from the point of view of diagnosis and also in following up the effects of treatment. The method is a complicated one, so various short-cuts have been introduced, but they are not so reliable. A positive blood-test is of import, but a negative one, like all negative things, may be misleading. The greater the number of negative blood-tests in series, for instance, in observing the effects of treatment the greater the certainty that one is on the right road. But it must be remembered that a negative result may sometimes be rendered positive again, 'provoked' (as the phrase is) by a form of treatment which will be dealt with further on, viz. by salvarsan.

The cause discovered, the next question is that of treatment. In the early days chaos in this respect prevailed. Some physicians, attributing to the disease an inflammatory complexion, recommended anti-phlogistic measures. The phlebotomist was busy, and Sangrado flourished exceedingly. Others were for baths and sweating. Others again, assuming that the disease was a

* In Berlin, by Schaudinn, a biologist, and Hoffmann, a medical man, collaborating, 1905. Whether this shape is a phase in the life-history of the parasite or not remains to be shown and is still in dispute.

† By Noguchi, a Japanese working at the Rockefeller Institute, New York, who has also cultivated the parasite.

‡ A method originally devised by Wassermann of Berlin, following in the footsteps of Bordet and Gengou of Brussels.

leprosy, prescribed the flesh and elixir of adders. This is on the testimony of Fracastorius, who himself recommended violent exercise and sweating 'to liquefy the thick humours and to expel the contagious germs.' A strict dietary was enjoined, and purging was regarded as essential, aided by blunderbusses in the way of pills containing many ingredients. We may smile at this polypharmacy and these grotesque ideas, but it is no matter of surprise that, in the face of this sudden outbreak of the disease in a virulent form, many practitioners lost their heads. Guaiacum, used as a decoction, was a favourite remedy. Guaiacum bark was imported from Hispaniola, which, as we have seen, was the island which Columbus had visited; and this led to the idea that, as the disease came thence, the cure had been placed in proximity by a benevolent providence. The fact is that Guaiacum was useless. Yet its virtues were extolled in poetical effusions. Ulrich von Hutten, who himself suffered from syphilis and had undergone treatment which was worse than the complaint, wrote a book on Guaiacum, dedicated to the Archbishop of Mainz. Guaiacum went under the name of *Lignum vite*, and is mentioned approvingly in the memoirs of Benvenuto Cellini. At another time decoction of tobacco was employed as a remedy.*

It is needless to say that, where the medical men were more or less helpless, remedies of all kinds abounded. 'All kinds of people' (says Fracastorius) 'treated syphilis: barbers, cobblers, herbalists and vagabonds of all sorts.' Quacksalvers and 'Empiricks' cried out their wares *urbi et orbi*, but they did one good thing, they introduced mercury. We have noted in an earlier part of this review, that mercury was often employed in the itch, which latter must have been a very common and widespread parasitic affection and must frequently have occurred as a complication of the *Morbus gallicus*, even among the well-to-do and the mighty. Mercury has been used for many years in skin diseases, indeed from time immemorial if it is true that the Chinese employed an ointment of mercury, sulphur and honey so far back as

* See Charles Singer, 'The Early History of Tobacco' ('Quarterly Review,' No. 436. 1913).

the reign of the Emperor Hoang-ty in the year 2937 B.C.* The empirics rubbed in mercury under the general impression that they were dealing with scabies, but the syphilitic symptoms were improved thereby. Unfortunately the inunction of mercury was greatly overdone. The physicians, warned by the dire effects of the treatment, enjoined caution by reducing the amount of the mercury in the ointment to a small proportion, one-fortieth part according to Torrella, one of the best physicians of his time. But the empirics pushed the remedy in enormous doses; and no doubt in their hands the treatment was a good deal worse than the complaint. It is not possible to quote von Hutten at length, but the symptoms he describes as following excessive inunctions of strong mercurial ointments, combined with persistent sweating and purgation which pretty nearly killed him, were mainly due to excessive mercury. Even in later days, the bad effects of mercury, when pushed beyond the limits of endurance, continued to do much harm. It is for this reason that many people still consider mercury injurious, whereas when properly employed it is invaluable, and, notwithstanding the introduction of other remedies of an arsenical nature, is still the only treatment for syphilis. This explains to a great extent why syphilis is much less destructive among us than it used to be. Better treatment and better social conditions have rendered the disease milder than it was.

Notwithstanding certain drawbacks, mercury is the sheet-anchor in the treatment of syphilis; and, if the practitioner will only deal with every individual case on its own merits, he will not go far wrong. At the present time mercury may be administered by the mouth, by inunctions and by intra-muscular injection. The first method is unreliable and inadequate. Mercury is seldom injected intra-venously. But we need not go into the details of these methods in this place.†

In addition to mercury, arsenic had found a place, a very small one, in the treatment of syphilis, in the shape

* Dabry, 'La Médecine chez les Chinois' (Paris, 1863).

† Cf. Pernet, 'The Treatment of Syphilis with special reference to intra-muscular injections' ('Brit. Med. Jour.,' Mar. 30, 1907); and 'The Intra-muscular Treatment of Syphilis: a critical review' ('Lancet,' July 24, 1909).

of an arsenico-mercurial solution. This did not amount to much. But in recent years, thanks to the revolution wrought by synthetic chemistry, a variety of organic arsenical preparations have found their way into therapeutics. It would be invidious to mention the various arsenical bodies put on the market. The fact is that, however efficient they were in their limited action on syphilitic symptoms, they were found dangerous, especially on account of their effect on the optic nerves and the blindness they sometimes caused. But further attempts were made to construct a compound which could be employed with greater safety. Ehrlich, associated with Hata, carried out many experiments on spirillar diseases such as syphilis, relapsing fever, the spirillosis of fowls, etc. This resulted in the preparation of '606,' since named Salvarsan, and subsequently of '914' or Neo-Salvarsan.* The aim was to obtain a substance which when introduced into the infected body in sufficient quantity would kill off all the specific parasites—a *therapia sterilisans magna*, as it was called. Trials of the remedy in man were first made at the end of 1909.

So far as '606' and '914' are concerned, we are now in a better position to judge what they can do and what they cannot do. In the first place, the *therapia sterilisans magna* has failed. But there is no reason why such an object should not still be kept in view; and future work may bring us nearer and nearer to its attainment. Though it has drawbacks, there is no doubt that salvarsan is a valuable addition to our resources in treating syphilis. Further, in some cases, the results have been astonishingly good and rapid, where the usual remedies have failed. But salvarsan should not be used in a routine way for any and every case of syphilis. The application of the remedy depends on various factors, such as the stage of the disease and the kind of symptoms present, to say nothing of the general condition of the patient as discovered after due examination. Little by little, we are getting to know

* The number '606,' which has become world-wide in reputation, means simply the 606th synthetic preparation in series built up in the laboratory. Salvarsan is a compound of arsenic and benzol.

more about salvarsan and are daily becoming better able to recognise its indications and limitations. At first '606' was injected into the muscles, but the better and more usual method is to inject it into a vein. As already stated, salvarsan will sometimes clear up very serious syphilitic morbid conditions in a wonderful manner.

Further experience of salvarsan, and also of neo-salvarsan, has demonstrated the fact that treatment must be followed up by mercury. Patients must be kept under observation and treatment pursued with continuity, the blood being tested from time to time. But this test being approximate only and not absolute, it is essential that our accumulated clinical experience of syphilis should be the chief guide in the various conditions we may have to deal with. One great advantage of salvarsan is that it clears up moist and ulcerated surfaces more rapidly than anything else. In this way it diminishes the risks of transmission. But, it must be repeated, salvarsan is not sufficient by itself.

We may now consider various proposals for prevention which have been put forward in this and other countries. In 1899 and 1902 international conferences on the prevention of syphilis and venereal diseases were held in Brussels, where the matter was most exhaustively thrashed out. The five large volumes of the Transactions contain a mass of information, maps, statistics as to prostitution and so forth. It seems that we are practically to go over the same ground again, at great expense and inconvenience. At the International Congress of Medicine last year reports on syphilis were presented by various authorities. Strangely enough, the report for Great Britain was entrusted to an army surgeon, who naturally viewed the matter from a military standpoint. On the Continent all attempts at drastic measures have utterly failed. In France, for instance, the regulation of prostitution and the *police des mœurs* are recognised as having done no good. It has been found by experience that all such measures defeat their object and that the cure is worse than the disease, whereas persuasion has in practice answered better. If law-makers cannot do anything with regard to the

increasing mortality and maiming due to motor-buses careering through our streets, how are they going to stamp out syphilis and venereal diseases? Certainly not by mere ordinances and regulations. The problem is a complex one, for these infections are on an altogether different footing from other diseases. They are transmitted from individual to individual in ways which defy supervision and regulation.

As to prostitution, we cannot do better than quote the conclusions arrived at by Dr Arthur Shadwell. In his article in the 'Encyclopedia Britannica,' he says:

'A general view of the whole subject suggests no pleasant or hopeful conclusions. Prostitution appears to be inseparable from human society in large communities. In different countries and ages it has in turn been patronised and prohibited, ignored and recognised, tolerated and condemned, regulated and let alone, flaunted and concealed. Christianity, the greatest moral force in the history of mankind, has repeatedly and systematically attacked it with a scourge in one hand and balm in the other; but the effect has been trifling or transient. Nor have all the social and administrative resources of modern civilisation availed to exercise an effective control. The elementary laws on which prostitution rests are stronger than the artificial codes employed by moral teaching, conventional standards or legislatures; and attempts at repression only lead to a change of form, not of substance.'

Another proposal, that of notification, would probably lead to an intensification of the trouble. Sufferers would be deterred from seeking proper advice; the confidential relations between doctor and patient would be destroyed. Patients have rights; and medical men are not policemen. It is true that a resolution in favour of notification was passed at a meeting of the International Congress of Medicine last year; but there were several dissentients, and there would have been more had the foreign experts on syphilis present fully grasped what was in question. Since then, Dr Carle of Lyons has strongly objected to the manner in which the vote was, as he says, *brusqué*; he did not even know that the motion had been put, so imperfectly was the interpreter's French understood. Speaking of the resolution, Dr Carle says:

'Ceci n'a pas une importance considérable, je le sais; et on ne veut rien dramatiser. Il n'en est pas moins vrai que, si un orateur, dans un milieu politique ou administratif, veut un jour soutenir cette thèse [i.e. compulsory notification of syphilis by the medical man] au moins discutable, il pourra attester que le XIII^e Congrès International de Médecine l'a adoptée en séance solennelle. Et cet argument ne pourra manquer d'impressionner vivement ses auditeurs, et de créer, dans le monde extra-médical, un mouvement en faveur de la déclaration obligatoire de la syphilis.'*

Moreover, at this meeting, which was public, it may well be asked what were the credentials of many of those who were present and voted in favour of the motion? Here the conclusion arrived at by Dr R. W. Johnstone (of the Local Government Board) may be quoted:

'As regards the question of making venereal diseases notifiable, it does not seem that the time is yet ripe. The stigma of suffering from venereal disease is so great, and the desire for concealment, with its consequent resort to quacks and self-treatment, so marked, that, until a more reasonable attitude towards the whole subject has penetrated the popular mind, notification would be likely to increase the number of concealments.'

All which points to the conclusion that compulsory notification is a two-edged sword, and in the case of syphilis is more than likely to defeat the object in view. In dealing with a disease of this kind, time and patience alone will make any impression. Long and arduous spade-work will be necessary; and the heat and burden of it will, as usual in such matters, be thrown on the medical profession. There will be no place for drawing-room dilettantism, high-flown oratory, and sentimental gush. Patchouli patronage, like that which wearies poor M. Bergson, will be out of place. Tackling syphilis in its various phases means hard work and some risk to those engaged in it, whether doctors, students or nurses.

We have dealt so far with the treatment of individual

* Carle, 'Dernier Echo du Congrès de Londres' ('Annales des Maladies Vénériennes,' Paris, 1913. Vol. viii, pp. 762 et seq.). The editorial committee of the 'Annales' adds, 'Le Dr Carle a parfaitement raison: un vote émis dans des conditions aussi défectueuses n'est pas valable.'

patients. But that is only one aspect of the matter. There is also prevention to be considered; and that is a bigger problem still, for the reason already stated, viz. the very nature of the sexual instincts. Whatever measures are adopted with a view to enlightenment, the process must necessarily be slow. Even full knowledge as to consequences cannot master the passions; and it is impossible to have half the population looking after the other half. Most would-be reformers, however good their intentions, know very little really about the matter and require to be educated. Before drastic measures are taken, it will be necessary to study the subject carefully from the social as well as the medical point of view, to think out ways and means, and to apply the gravest consideration in forecasting the consequences. Otherwise we shall only repeat the errors of the past, and run the risk of much tribulation for no reward.

If, as would be inevitable in case of compulsory notification, medical treatment is to be adopted on a large scale, communities must be prepared to spend large sums. The treatment of syphilis is a prolonged one; and, if salvarsan is to be used, the expense would be largely increased, for it is not a cheap preparation. If microscopical and blood examinations are to be generally made, special departments and wards and a large staff of medical men and pathologists with laboratories will be required and will have to be paid for; and the cost would be very great.

Ardent suffragists appear to expect immense results from the grant of the franchise to women. They do not explain how these results are to be obtained. Measures which may suit one country may fail when applied to another; the particular genius of a nation must be borne in mind. Moreover, the peculiar portability of the disease and the increasingly large and rapid movements of population have to be taken into account. It is one thing to apply remedies to a sparsely populated area, and quite another to handle a vast city like London, which is the clearing-house of humanity, with representatives of all parts of the globe streaming in and out. If the parliamentary action of women reformers could improve the condition of things in their own country—which is, to say the least, very

doubtful—fresh infection would constantly be coming in from abroad. Syphilis is common all over the world. One may establish a *cordon sanitaire* and quarantine for cholera and plague, but it would be impossible to do this for venereal diseases. This makes the stamping out of syphilis a practical impossibility. It is well to realise what one cannot do, and leave it alone; and a reasoned masterly inactivity may in some cases answer better in the long run than impulsive meddlesome interference.

In conclusion, there is no doubt syphilis is widespread and deep-seated. This is well-known to those who are actually dealing with the disease in its various and elusive aspects. The very nature of the syphilitic infection, as will be readily gathered from what we have said, makes any figures which might be adduced very fallacious. For that reason we have not dealt with the statistical aspect of the question. Many cases do not come under medical observation at all, others are not detected; and the part played by syphilis as a factor in obscure conditions is frequently unrecognised, especially in death certification.

That a gradual and in the end considerable amelioration may be achieved we are entitled to hope, although the prospect of altogether eradicating syphilis is remote indeed. But such improvement as is possible will be the result, not of what are called heroic and are really rash and violent measures, but of the gradual spread of public spirit, of the sense of duty, and of the strengthening of self-control. These are no doubt counsels of perfection, but some tangible results may perhaps be expected if the public can be made to realise what syphilis really means.*

GEORGE PERNET.

* Since this article was in type, Mrs Creighton has published an admirable little work entitled 'The Social Disease and how to fight it' (Longmans). While paying particular attention to the attitude which women should adopt towards the question, the book is full of sound judgment and wise advice which the general public will do well to accept.

✓ Art. 8.—SIR DAVID GILL AND RECENT ASTRONOMY.

A History and Description of the Royal Observatory, Cape of Good Hope. By Sir David Gill, K.C.B. London: H.M. Stationery Office, 1913.

IN the autumn of 1913, shortly before the death of Sir David Gill, his book, called 'A History and Description of the Royal Observatory, Cape of Good Hope,' was published by order of the Lords Commissioners of the Admiralty in obedience to His Majesty's command. It is a large quarto, of which 136 pp. give, with many excellent plates, a description of the splendid instruments designed for and erected at the Cape under the supervision of Sir David Gill, who, from 1879 to 1907, held the post of H.M. Astronomer there. The introductory history, extending to 190 pages, records the work done at the Observatory, both before and after his appointment.

The value of this book to astronomers, professional or amateur, is incalculable. The death of the author on January 24, 1914, so soon after he had thus summarised a life's work in those pages, ensures the interest of a large outside public in the extraordinary developments made in the science of astronomy during his lifetime. It also justifies the reviewer in glancing a little beyond the written pages to speak of the beautiful mind and the inspiring ideals of this great man, who will live in the hearts of all who knew him, not only as among the greatest of astronomers, but also as one of the noblest and most lovable of men.

During the two centuries that followed the publication of Sir Isaac Newton's 'Principia,' the greatest delight of astronomers was to watch the members of the solar system, to measure their positions with the highest precision, to learn to foretell their movements, and to test the universality of the law of gravitation in every case of apparent deviation from that law. The discovery of Neptune in 1846, before it had ever been seen, by its disturbing action upon the planet Uranus, was the crowning triumph of that phase of astronomical research. After this, attention came to be directed more and more to the so-called fixed stars. The revolutions, in many cases, of a pair of stars round a common centre of

gravity, exactly as in the solar system, seemed to extend the law of gravitation to stellar systems. Even the variability in the brightness of some stars could be attributed to the mutual eclipses of two stars, visible only as one, while revolving round each other; and the spectroscope added new evidence of the existence of such stellar systems subject to the force of gravitation. Then the direction and amount of the minute proper motions of some stars were measured, and, after their distances had been, with great difficulty, found in some cases, the actual velocity indicated by the proper motion could be expressed in miles per second. Gradually data accumulated for building up a stellar universe in perspective, and detecting the motion of our sun among the stars, and discovering the existence of great swarms of stars, the members of each swarm all moving in the same direction.

In later years the invention of the spectroscope has helped to divert attention from the solar to the stellar systems. This instrument enables the constitution of the stars to be discovered by the colours of the light emitted. The appearance of the spectrum as a ribbon of colours from red to violet along its length is too well known to need description; also the absence of certain colours, as indicated by black lines crossing the ribbon. The spectrum of the star Arcturus has hundreds of these black lines corresponding in position exactly with the lines shown in the spectroscope by glowing iron vapour, because iron is present in the star Arcturus. So with other chemical elements and with other stars. This study has originated the new astronomy dealing with the physical constitution of all the heavenly bodies.

But the spectroscope has another wonderful application. Sometimes the black lines representing iron in the spectrum of a star like Arcturus are shifted slightly to one side or other of the corresponding lines in the spectrum of glowing iron vapour; and this, when interpreted by a knowledge of the theory of light, enables astronomers to say whether the distance from us to any star is increasing or diminishing, and to measure the speed in miles per second. This marvellous faculty has given a new impetus to the study of stellar motions, and to the detection of stellar systems and stellar swarms.

The transition from the old to the new astronomy, from the period of precision in determining the positions of the heavenly bodies to the period of studying them with the spectroscope and applying photography, coincides with the period of Sir David Gill's activities in the world of science. That fact gives an enhanced value to the book under review and to the life of its author. The 'Description' takes a position such as Tycho Brahe's description of the Uranienburg Observatory, or Wilhelm Struve's of the Pulkova Observatory, held in their days; and for long it will be used as a guide to the design and construction of astronomical instruments of precision. The chief value of the 'History' for astronomers throughout the world is that it contains a condensed summary of the work of its author. Before Gill took up his duties in South Africa, Fallows, Henderson, Maclear and Stone, with their assistants, had done the best they could as H.M. Astronomers at the Cape Observatory, controlled as it was by the Admiralty of an economising, and not too sympathetic Government; and the result was pitiable as the outcome of the premier Observatory of the southern hemisphere. From the moment when David Gill, the man of energy who always knew exactly what he wanted to accomplish, appeared upon the scene, this Observatory developed with giant strides, and became, before he left it, a model for all the world, fitted with the finest instruments of precision, and furnished with a devoted staff adding yearly to the published results which enriched astronomy, under the direction of their honoured chief.

David Gill, son of David Gill, J.P., of Blairythan, Aberdeenshire, was born on June 12, 1843. He became a student at Marischal College and University, Aberdeen. Thus he came under the genial influence of that lovable, unselfish and profound philosopher at Marischal College, Professor James Clerk Maxwell. He was one of the few to gain the full benefit from the lectures, for Maxwell (like Kelvin) was a failure in teaching the average young men in his class. After each lecture, he would carry on his instruction by conversation with his favourite pupils, and no one was more receptive than young Gill. At the age of twenty he went to Edinburgh

and made his first acquaintance with an astronomer, Prof. Piazzi Smyth, and an observatory, that on the Calton Hill. On his return he urged Prof. Thomson of King's College, Aberdeen, to assist him to give accurate time to the town of Aberdeen. His boyish enthusiasm awoke a sympathetic chord in the Professor. They unearthed an old transit instrument, cleaned and mounted it, and fitted up a clock to send electric signals to control other clocks indicating true Greenwich time. This gave Gill some training in the routine work of an observatory. Then the two set to work with a $3\frac{1}{2}$ -inch telescope. This whetted Gill's appetite, and he bought, second-hand, a silver-on-glass speculum of 12 inches aperture. He designed and erected a mounting for the reflector, and with his own hands constructed the driving clock. With this fine instrument he observed stars, nebulae and planets, besides photographing the moon (by the old process of wet-plate photography).

In 1870 he married Isobel, second daughter of Mr John Black, of Linhead, Aberdeenshire. They had no children, but their devoted affection, sympathy, and mutual helpfulness were evident to a wide circle of intimate friends. After his marriage he settled in the town of Aberdeen, near his observatory. His father, at an advanced age, retired from his old-established business, dealing in clocks of all kinds. He wanted his son to continue the business, and David, much against the grain, yielded to what he considered to be his duty. While he still spent his evenings on astronomy, he devoted his indomitable energy in the day to the work which lay before him, and he succeeded. He even set to work to perfect himself practically in the watchmaker's art, an experience which served him well in his subsequent dealings with delicate instruments. To the last day of his life there rested upon the mantelpiece of his study a beautiful clock, made with his own hands.

He was very successful in his efforts to obtain good photographs of the moon, at a time when this art was in its infancy. These photographs incidentally gave a new turn to his life. Lord Lindsay, who later succeeded his father as the Earl of Crawford, was considering the question of building an observatory at Dun Echt, not far from Aberdeen. Having seen these lunar photographs

he made Gill's acquaintance, saw his instruments, discussed astronomical problems with him, and yielded to the charm of his ardent enthusiasm for science, as many a young man has yielded in the last fifty years. Finally, these two men entered into a partnership for astronomical research, and Gill was appointed to the charge of the observatory, which they proceeded to set up at Dun Echt.

By this time David Gill's scientific character was completely formed, and the principles then accepted as his guide in all scientific work were never altered. They were explained, after his retirement from active observatory work, in his Presidential Address to the British Association in 1907. He speaks of learning the lesson

'that human knowledge in the slowly developing phenomena of sidereal astronomy must be content to progress by the accumulating labours of successive generations of men; that progress will be measured for generations yet to come more by the amount of honest, well-directed, and systematically discussed observation than by the most brilliant speculation; and that, in observation, concentrated systematic effort on a special thoughtfully selected problem will be of more avail than the most brilliant but disconnected work.

'By these means we shall learn more and more of the wonders that surround us, and recognise our limitations when measurement and facts fail us.' (Report, p. 25.)

It is not often that an astronomer has the opportunity twice in a lifetime, as Gill had, practically to create, equip and use a magnificent observatory in accordance with the highest ideals. Dun Echt Observatory (which with instruments and library were transferred to Blackford Hill, Edinburgh, by the late Earl of Crawford, and presented to the nation), and the Cape of Good Hope Observatory, are substantial memorials to the memory of Sir David Gill. The large volumes, numbering about thirty, issued under his direction, including the Dun Echt Observatory publications, the Annals of the Cape Observatory, the Geodetic Survey of South Africa, and the Cape meridian observations, as well as his contributions to the Royal Astronomical Society and to astronomical literature generally, will remain for ever a permanent record of the energy, fixed

purpose and perseverance that sustained this man through a life of hard work.

In planning Dun Echt Observatory, Gill's attention was mainly directed to precision of measurement. So, besides the mere telescopes, he selected what seemed to him the best instrument for fixing absolute positions of stars, etc., a transit circle resembling Airy's at Greenwich, but with the great advantage of being reversible. Differential observations of the apparent distance between two stars can be made with far greater precision than absolute measurements of position. For this purpose he determined to employ the heliometer, which had given splendid results in the hands of Bessel, but was almost untried in this country. This judicious decision, arrived at after much thought, and the excellent use he made of the instrument, went far in his younger days to establish his reputation in the astronomical world.

During the 19th century, from 1870 onwards, astronomers were more concerned with the sun's distance from the earth than with any other celestial measurement. The shapes of the orbits of all the known planets were perfectly understood, and the relative positions of the planets at any moment, past, present, or future, could be laid down as on a map with great accuracy, but the scale of that map was not known with any exactness. If at any date the true distance in miles between any two planets, or between any one of them and the sun, were known, we should then know the true scale of the solar system, and the distance of the sun from the earth. In Gill's young days the most pressing astronomical problem was to measure as exactly as possible the sun's distance from the earth. At that time it was known to lie between 90 and 96 millions of miles. Astronomers wanted to know it within a thousandth of its amount.

Some thought that the best method lay in measuring the distance from us of Venus or Mars, because these planets approach the earth more closely than others, and the chance of error in measuring the distance decreases with proximity. There was a general opinion, originated by Halley in 1716, that observations made from different parts of the earth's surface of a transit of Venus across the sun's disc, when compared, would

give the best result, and that the exact time of contact between the edges of Venus and the sun could be noted with great precision. These transits occur only twice, at intervals of eight years, in a century. So the great nations made costly preparations to send expeditions to suitable parts of the world in 1874 and 1882. Gill collaborated with Lord Lindsay, and carried the instruments and observatories to Mauritius. The net result of all these costly expeditions amounts to this:—that the time of true contact cannot be fixed with certainty, and that this method for determining the sun's distance from the earth cannot be relied upon. There were, however, immense gains arising from these expeditions. Those of present interest in connexion with Lord Lindsay's expedition were: (1) Gill's experience with the heliometer; (2) his observations of the minor planet Juno as a means for finding the sun's distance; (3) his longitude determinations; and (4) his measurement of a base-line for the Khedive in Egypt on his way home.

Gill's operations at Mauritius with the heliometer on the minor planet Juno gave a value of the sun's distance which we now know to be close to the truth. But they were not effected under the best conditions; so he always looked upon them as preliminary to a future use of the same method, in which he had gained entire confidence. He came to the conclusion that far more accurate work could be done with one of these minor planets of small diameter which are shown as a mere point of light, than with a larger and nearer planet, like Venus or Mars, showing a disc of sensible size, affected by phase.

In all of these ways science gained by the Mauritius expedition; but the grandest result was that it made a man. Gill's reputation as a most accurate observer was established; he had gained confidence in himself to carry out any work, however difficult, that he might undertake; and he had learnt the value of the heliometer from the accuracy and consistency of his own observations. In 1872, while the writer was studying practical astronomy at Greenwich Observatory under Airy, he mentioned to Gill a quaint dictum of Airy's (which fairly represented the degree of accuracy then sought for by astronomers) that 'a tenth of a second of arc is the smallest thing in the world.' In 1876, at Dun Echt,

Gill showed him his heliometer observations at Mauritius, sheets upon sheets of concordant results, and then asked: 'Will Airy deny now that there is such a thing as a hundredth of a second of arc?' On the occasions of visits to England during his Cape appointment he reiterated the question after producing new evidence from his stellar parallax work. And again in 1895 and 1902, when the present writer visited him at the Cape, bundles of manuscript were produced to show that, with his new heliometer, a hundredth of a second of arc is a very measurable quantity.

This small angle is less than that covered by a three-penny bit at a distance of a hundred miles. Gill expressed it so in a lecture to the Institute of Marine Engineers two years before his death; and he used to enjoy narrating how the chairman at a dinner in the evening, when proposing the lecturer's health, said there could be no doubt about his nationality, because nobody but a Scotsman would bother about a threepenny bit at a distance of a hundred miles.

In 1876 Gill left Dun Echt and settled with his wife in London. While there he resolved to go to the Island of Ascension to find the sun's distance from observations with the heliometer on the planet Mars in 1877, when that planet would come closer than at any time in the next fifteen years. He still believed that a small minor planet would give a better result, but he wanted to do the best that could be done with Mars. Lord Lindsay lent him the heliometer, and his friends in the Royal Astronomical Society then came forward and made arrangements to finance the expedition. This act he never forgot. It led him all through his life to devote himself whenever possible to the Society's interests.

Concerning the seven months spent by Gill and his wife upon this arduous undertaking the reader is referred to a charming popular description written at the time.* The difficulties encountered on the inhospitable clinker of the volcanic rock, and in their almost inaccessible encampment at 'Mars Bay,' are related with humour and pathos. We see two beautiful lives being lived there; and the reader's sympathy is divided between the

* 'Six Months in Ascension,' by Mrs Gill. John Murray, 1878.

anxious observer, when the heavy and delicate instruments were being transported under dangerous conditions or when the clouds refused to dissipate for weeks, and the wife who relieved him of attention to domestic concerns, while stifling her own anxieties concerning untoward meteorological and astronomical affairs. In the end Gill succeeded in determining the exact position of Mars among the stars each evening in the east and each morning in the west. Its apparent displacement, owing to the observer being moved in the interval (by the earth's rotation) several thousand miles on each side of the earth's centre, supplied the data for computing the distance of Mars, and thence the distance of the sun, from the earth. This value remained as the most reliable one in existence until many years later when, at the Cape of Good Hope, Gill finally executed his plan of using minor planets for the same purpose.

We now reach the important period of Sir David Gill's life when he was appointed H.M. Astronomer at the Cape of Good Hope. The Cape Observatory has always been the most useful one for the study of the southern heavens, and until quite recently was almost the only one. In 1878 Mr E. J. Stone's coming retirement from that Observatory was announced, and Gill applied for the post. He was hopeful but diffident, for he was well aware that he was a self-made astronomer, who owed nothing to outside influence, that he had not been trained under any great astronomer, that he had proved his mathematical powers to the world only in actual work, and not by a contest in the Cambridge Tripos. But the friends who supported him knew that his reputation was established as a splendid observer, as an engineer for the design and equipment of an observatory, and as an astronomer of great ability, combined with lofty ideals, sound judgment, originality, and dogged perseverance; and that astronomy needed him.

On February 10, 1879, he received the appointment. He was now in the prime of life and full of enthusiasm. His first act was to visit the observatories of Paris, Leiden, Groningen, Hamburg, Copenhagen, Helsingfors, Pulkowa and Strassburg. He examined instruments and

exchanged views with the directors, besides establishing relations with younger men, especially with Winnecke's senior students at Strassburg, including Kustner, Hartwig, H. Struve, Ambronn, and Elkin; all men who have made their mark. He influenced some of these astronomers with his magnetic personality, and formed life-long friendships. Auwers at Berlin undertook to co-operate with him; and Elkin promised to travel to the Cape to assist in heliometer researches on the distances of the stars ('stellar parallax').

The Gills reached the Cape on May 26, 1879, and he records his position thus :

'I was fettered by no official instructions and therefore had a free hand to do that which appeared to me best for the advancement of astronomy; the only restraints being those imposed by the shortcomings in available means and instruments' (p. xxxix).

The grounds, buildings, water-supply, and roads at the Observatory showed the effect of years of neglect. Gill, having had no experience with the Admiralty, his new chiefs, begged Commodore Richards (afterwards Admiral of the Fleet, Sir Frederick Richards, G.C.B.), then Commander in Chief on the Cape Naval Station, to inspect the place. His personality immediately took possession of that able administrator, who from that time to his death tried to help and advise Gill in his negotiations with the Admiralty.

'From every point of view (writes Gill) I owe him a debt of gratitude that can never be repaid. To use his own phrase, he "passed me on" to his successor in office at the Cape; and so, from Admiral to Admiral, there was formed a continuous link of co-operation and friendship which was not only one of the most delightful features of my life at the Cape, but which, I venture to think, was also conducive to the best interests of the Observatory and of the public service' (p. cxlv).

The result of Sir Frederick's advice was that Gill's report was acted on, and the allowance for repairs and maintenance was at once trebled. Eventually the grounds, buildings and amenities of the Observatory became an ideal residence, and most suitable for the undisturbed cultivation of science. A previous occupant

of the post included in his letter of resignation these words: 'It is much to be feared that it is beyond the power of Government to make the Observatory an agreeable place of residence' (p. xvii). On this Gill remarks:

'He [Henderson] was not the man to fight an uphill battle with neglect at home, and to compel Fate, in the shape of official indifference or incapacity, to do his bidding and raise the status and equipment of the Observatory to the ideal level which he claimed for it. That required a dogged persistence and force of character of another kind' (p. xvii).

Gill proved that he himself possessed that 'dogged persistence and force of character.'

In this connexion a tale of the Admiralty may here be told. There was at one time a carpenter attached to the Observatory, whose utility was hampered by the distance of his home from his work. In one of his annual reports to the Admiralty Gill asked for a carpenter's cottage to be built on the Observatory grounds, and his request was refused. Every year after this, the request was repeated in stronger terms. At last the First Lord, or some other high authority, exclaimed with a laugh:—'For Goodness' sake, let Gill have a carpenter's cottage or we shall never have peace.' His 'dogged persistence' became proverbial. On another occasion some American observers arrived at the Cape for the Transit of Venus. Sir George Airy, the Astronomer Royal, had sent them a letter in which with his droll humour he said: 'You will find Gill most willing to help, and his assistance will be invaluable to you; but—and I speak from experience—be sure, whatever he wants, to get it done for him at once, and without question.'

The defects of the Cape Observatory in regard to instruments and assistants would have disheartened any one less optimistic than Gill. The only available instruments were the transit circle, the 7-inch equatorial, and the photo-heliograph; the last quite useless, the first in urgent need of repair, and all of them radically imperfect according to Gill's standards. The transit circle, set up in 1855, is almost identical with the present Greenwich one, and, being irreversible, was, as he considered, hardly suitable for fixing fundamental star-positions in the

premier observatory for the southern skies. Airy opposed the request for a reversible transit-circle, and it was not granted for many years. So Gill wisely determined to justify his demands for better instruments by making the best possible use of the means at his disposal, and proceeded to produce many excellent catalogues of stars of the utmost value to astronomers.

He also wanted to justify a future demand for a large heliometer, so, at his own expense, he bought from Lord Crawford the one he had used so well at Dun Echt, Mauritius and Ascension. A transit circle is quite the best instrument for *absolute* star-positions. But far greater accuracy can be attained for *relative* star-positions with the heliometer. To justify his high opinion of this instrument he set to work with the 4-inch heliometer to find the distances from us of a number of stars suspected to be comparatively near to us, by noting their change of place ('parallax') compared with neighbouring stars, when the observer is carried to opposite points of the earth's orbit, nearly 190,000,000 miles, in its revolution round the sun. After this splendid work he felt justified in asking for a new and powerful heliometer, and of course he got it.

In this persistent way he gradually added to the equipment, and in the course of his residence at the Cape he acquired for the Observatory, in 1882, the 6-inch refractor, and 3-inch altazimuth; in 1883, the zenith telescope; in 1887, the 7-inch heliometer; in 1890, the 13-inch astrographic telescope for star-photography; in 1897, Mr Frank McClean's 24-inch photographic telescope, objective-prism, and spectroscope; in 1900, the 'Gill' reversible transit circle. He also acquired smaller instruments and adjuncts; while in the period of his directorship the staff was increased to thirty-four. The Victoria telescope, with its unsurpassed spectroscopic equipment, was Mr Frank McClean's tribute to Gill's genius for success. The others were all paid for out of the public purse. To any one who knows the ways of Government departments this record must appear simply marvellous; and it bears most impressive testimony to the tact, sober judgment and 'dogged persistence' which enabled him, in the course of twenty-eight years, to transform the small collection of poor instruments on

a barren plot of land into the present splendid Observatory in lovely grounds, with instruments perfect in all the refinements that their author could secure or devise, unequalled in all the world for the special kinds of work for which they were designed.

The records left by Sir David Gill are probably unsurpassed in value by those of any living astronomer who has worked on similar lines. He never ceased to keep before him some of the great ideals and problems of his youth, such as stellar distances, the sun's distance, and the figure of the earth. But he attended with equal industry to the duties imposed upon him as director of the premier southern Observatory, and as the scientific representative of a great empire in one of its important colonies. Thus he was led, among other things, to the laborious construction of star catalogues from meridian observations; to compiling the Cape Photographic Durchmusterung, and revising it; to taking his share in photographing and cataloguing stars for the International Astrographic Chart and Catalogue; to locating with the highest possible precision the stars adjacent to the south pole; besides work on the moon's distance, on the Jovian system, on aberration of light, on time-signals for navigators; and lastly, perhaps his most important work for the empire, the geodetic survey of South Africa. This is not by any means a complete summary of the work he carried through. The secondary fruits of his labours were of great value, such as the determination of the masses of the moon and Jupiter; the use of the heliometer for regular observations of the planetary positions; the observation of comets, double stars and occultations. But his greatest undertaking was a secondary fruit of his geodetic survey, in the interests of which his efforts were never relaxed to his dying day, and which he described as 'the dream of my life.' He resolved to improve our knowledge of the figure of the earth by measuring the longest meridian arc on the earth ever attempted, extending, on the 30th degree of east longitude, from Cape Agulhas to the mouth of the Nile. Also he hoped to connect this with the Russian survey and so to continue that meridian arc as far north as Hamerfest, with a length extending over 105° of latitude. During the whole time of his residence

at the Cape the direction of these surveying operations occupied much of his time.

All such researches on the figure of the earth are attractive to accurate observers. They attracted Sir David Gill, who had been initiated into the measurement of a base-line at the Pyramids in 1875. No wonder, then, that while occupied with the surveys in South Africa he appreciated the value of a great meridian arc, to be measured by triangulation, checked by several measured base-lines, with latitudes determined astronomically at various points.

After his arrival at the Cape in 1879, the wants of Cape Colony and Natal soon compelled Gill to commence an accurate survey. It was uphill work in the existing financial and political situation. He gained assistance from administrators like Sir Bartle Frere, Sir George Colley, and Sir William Mitchell; from Royal Engineers like Sir William Morris and Colonel Laffan, and from men on his own staff like Finlay. In these negotiations, as in others, he gained that co-operation of the best man, which in all departments of the world's work is accorded to the capable and self-confident leader of men. Meanwhile the authorities of Bechuanaland were marking out the boundary of German territory defined by the Berlin agreement of 1890. In 1896 Gill came home while that boundary was a source of friction with Germany. After a consultation at the Colonial Office, he was sent by Mr Chamberlain on a mission to Berlin to create a *modus vivendi*. His intimate knowledge and tactful conduct were rewarded by success, and he received the thanks of the Foreign Office. Mr Cecil Rhodes also came under his influence; and so the survey of the great meridian arc was steadily carried northwards. In 1903, after the war, men trained at the Observatory were sent to carry on the survey in northern Rhodesia, and latitude 10° S. was reached in 1906. In 1902 Lord Milner invited Gill to go to Johannesburg in connexion with the mapping of the Transvaal and Orange River Colonies, and appointed him scientific adviser to their governments in all survey matters. He also, at Gill's suggestion, appointed Colonel Morris as superintendent of the survey.

The climax of interest in the story of the meridian arc was reached in 1906, when it became absolutely

necessary to connect the Limpopo region of the Transvaal with the Rhodesian triangulation. The Chartered Company were breaking up their trained survey party after their own work was done. Gill urged them by cable to complete this link in the chain, but 'his efforts at a distance of 6000 miles from headquarters were unavailing.' So he selected the man who could best negotiate, and cabled to Sir George Darwin, asking him to collect funds. Darwin was in America, and it was not until May 7 that he cabled, 'Money possibly forthcoming—hold party together.' Gill cabled that a decision was necessary by May 24. On May 21 Darwin cabled, 'I have procured 1600*l*. for completion survey. Can you guarantee it will be finished for this sum? Impossible obtain more.'

Meanwhile all transport had been returned from the surveying camps, and Gill had to start negotiations with the Transvaal Government. On May 31 he cabled through the Chartered Company: 'Tell Darwin Transvaal has granted loan of transport. Morris and I believe can now finish connexion for 1600*l*.' On June 8 the answer came: 'Inform Sir David Gill from Darwin 1600*l*. has been granted, only provided he guarantees finish connexion.' And Gill cabled: 'Gill accepts responsibility, acts of God and the King's enemies excepted.' Sir George Darwin's subscribers were the Royal Geographical Society, the Royal Society, Mr Wernher, Sir George Darwin, the British South Africa Company, and the British Association. Thus was the situation saved for the great meridian arc on which Gill had worked for so long, by two earnest, sincere men at the two ends of a telegraphic cable 6000 miles long. They might well be proud of it.

After Gill's retirement he was untiring in his efforts at home to connect this grand survey with the Egyptian triangulation in the Sudan, with the help of the Belgians and Germans who own the intervening country. It is to be hoped that his death will not end these efforts, and that his magnificent project of a meridian arc measured from the south of Africa to the north of Europe may be completed, to crown the labours of himself and many others on the true figure of the earth.

Out of all the astronomical undertakings that are

described in the 'History' a few must be selected as particularly illustrating the scientific character of David Gill, the astronomer. We must hope to have some day, from one who is capable of writing it, the life and character of David Gill, the man.

It has been already stated that, to justify himself in asking for a powerful heliometer, Gill determined to show what refined work he could do with the one he had purchased from Lord Crawford. That instrument arrived in 1880, and Elkin came out as a voluntary assistant in 1881. The problem for their joint attack involved the most delicate measurements known to astronomers at that time, to measure the distance of a star by using the diameter of the earth's orbit as a base. The minute angles to be measured were well within the compass of his heliometer. Henderson, a predecessor of Gill's, in 1833 had obtained observations with the mural circle of a bright star, α Centauri, sufficiently exact to obtain its distance from us—a distance so great that the light reaching us from the star, though travelling more than 186,000 miles a second, takes $4\frac{1}{3}$ years to reach us. This was actually the first time that Tycho Brahe's reasonable argument against the Copernican theory was removed, and that the motion of the earth round the sun was demonstrated geometrically. This star, α Centauri, happens to be closer to us than any whose distance we know at present, and Gill saw that the mural circle is not fitted for the fine work on more distant stars. So he planned the first systematic attack upon the distances of stars by using the far more delicate instrument, the heliometer. Nine stars were selected to begin with. The experience thus gained suggested many instrumental improvements; and, when Gill was in England in 1884, he asked for a 7-inch heliometer embodying these improvements of his own. The request was granted, and thus, in 1888, he was enabled to extend considerably our knowledge about the distances of the stars and the scale of the universe. When he turned the new heliometer to the heavens and put it through test after test he rejoiced to be able to describe it as 'the most powerful and convenient instrument for refined micrometrical research in existence.'

He was assisted in this later work on stellar distances

by Finlay and De Sitter. But his joy in having this splendid instrument was completed by the new possibility of crowning his earlier work on the greatest astronomical problem of his youth, the sun's distance. His plans with this object were based on his past experience at Mauritius with the heliometer when he had used it on the minor planet Juno. The small planets he now selected for observation were Iris, Victoria and Sappho, of which the first would approach the earth in 1888, and the other two in 1889. His plans were at first made for co-operation with Elkin at Yale, U.S.A.; but the heliometers used by Schur at Göttingen, Peter at Leipzig, and Hartwig at Bamberg were also utilised. The combined work on the three planets at all of these observatories gave the sun's distance as 92,875,000 miles. Much later, Hinks computed the sun's distance to be 92,826,000 miles, from photographs giving the positions of Eros obtained at a number of different observatories, during the period of its opposition in 1900-1901. Eros is a remarkable minor planet discovered in 1896, whose orbit is very excentric, and which sometimes approaches the earth even closer than Mars. There can be no doubt now that Sir David Gill's measures of the sun's distance are correct within a thousandth part of the whole.

A perusal of the 'History' during the period of Gill's attack upon the three minor planets reveals very exceptional qualities in the character of the author, especially in dealing with the planet Victoria, one of the grandest astronomical researches ever carried out through the energy of a single dominant personality.

If, morning and evening, the apparent distances and direction of the planet from a suitably chosen star, or preferably from more than one, be obtained, this pair of observations gives complete data for one attempt on the sun's distance. Or again, if nearly simultaneous observations of this kind are made at two widely separated observatories, then also the pair of observations gives the complete data. And in neither case does the position of the star of reference require to be known with the utmost precision. If, however, these star-positions be very accurately known every single observation of the planet assists in the general solution. To enable him thus to use all observations Gill applied to his friends, a

term that included every astronomer in the world; and twenty-two observatories were engaged in finding the accurate positions of the comparison stars which he selected. Dr Auwers of Berlin undertook the labour of reducing for him all these many observations.

At one moment all the preparations for the attack upon Victoria were endangered. Gill and his assistant, Finlay, were the only observers on the spot experienced enough to make the necessary measurements; and such a prolonged study of the planet ought to be independent of any possible breakdown from the strain upon the eyes and brain of a single observer. After all the plans had been laid, the Admiralty detached Finlay to Natal for other work. In this dilemma Gill told his trouble to Dr Auwers, who promptly gave up his own work and engagements, and made the long voyage to the Cape to give his personal services as assistant to Gill. The definitive value of the sun's distance finally obtained by Gill from these three planets was accepted at the Paris Congress of Directors of National Ephemerides in 1896, to be used by them in computing for all the Nautical Almanacs of the world.

It often happens in scientific work that some grand research contains bye-products of great value, and so it was here. The whole calculations depended upon the changes in apparent direction of the minor planet when two points of observation on our earth, separated by a measurable distance, are used. In the case of simultaneous observations by two observers in different parts of the world their geographical position would supply that measurable distance in miles. But in all other cases account must be taken of the motion of the observer: (1) by the rotation of the earth on its axis; (2) by the revolution of the earth round the sun, and by planetary attractions; and (3) by the revolution of the earth and moon about their common centre of gravity. This third datum cannot be calculated without knowing accurately the ratio of the mass of the earth to the mass of the moon. All of the calculations used the value 83 to represent this ratio. The sun's distance was found from 1627 observations made during three complete lunar months; and the results were found to have a regular variation, reaching a maximum, falling to a minimum,

and returning to a maximum in a lunar month. After enormous labour in calculation it was found that these discrepancies practically disappeared if we accept 81.6 instead of 83 as the ratio of the earth's to the moon's mass. This result increases our admiration for the extreme accuracy of the observations and of the calculations based thereon.

A perusal of the 'History' shows how ready the whole world of astronomers was to assist Sir David Gill in his great undertakings, confident that his 'dogged persistence' would carry the most laborious endeavours to a successful issue. It was Gill's personality that led Elkin first to visit the Cape and learn to use the heliometer, that led Schur and Peter and Hartwig to add their quota of observation, and Auwers to reduce for his use the great mass of observations of comparison stars, that led the directors of twenty-two observatories to observe these comparison stars, and Dr Tietjen to compute for him the planetary perturbations. Lastly, it was affectionate esteem that induced Auwers to sacrifice everything to lend his personal help.

No wonder that Gill writes thus :

'One very noteworthy and delightful feature connected with these researches was the enthusiasm and goodwill with which astronomers in all parts of Europe and America responded to and took part in the programme of observation. Above all, it brought us a visit from Professor Auwers of Berlin, who, under the circumstances described at p. lxxii, became our guest from the 24th May until the 5th September, and took a full share with me in the work of the *Victoria* observations. We all look back upon that visit with the greatest pleasure and interest. I owe to him a debt of gratitude for the self-sacrifice, scientific devotion, and friendship which prompted it, and which I fear can never be adequately repaid' (p. cxlix).

We may search the memoirs and biographies of astronomers, from Tycho Brahe, Kepler and Newton, to the great days of the Herschels and Struves, of Argelander and Airy, without finding any parallel to the intense devotion and affection universally inspired by the simple, unselfish and essentially human character of this great astronomer whose loss is now deplored.

The 7-inch heliometer was in constant use afterwards

on Jupiter's satellites, in mapping circum-polar stars, and for continuous records of planetary positions with higher accuracy than that attained by the best meridian instruments. As an example of Gill's great care to get the best work out of an instrument it is worthy of record that he made 50,000 observations, in order to discover the error of the divisions on the scale of his heliometer.

After the realisation of his hopes with regard to measuring the sun's distance, and the setting up of a heliometer proved to be *facile princeps* among astronomical instruments for micrometer work, he still had another ideal, which was to test his engineering skill even more severely. The transit-circle is the principal instrument used by all astronomers for finding the absolute positions of the heavenly bodies. The Airy circle at Greenwich used to be considered to be one of the finest in the world, but even at Dun Echt Gill had preferred to make it reversible on its pivot-bearings. Since then he had discovered a personal error, in using such instruments, varying with the magnitude of a star. Again he had noticed the inequalities of temperature inside and outside a transit-house like the one at Greenwich, and these create errors by atmospheric refraction. Temperature changes affect also the levels of the piers upon which the instrument rests, and the distance of the circle-divisions from the reading-microscopes. Local heating arises from the observer's body and the illuminating lamps. There always remains a certain flexure of the telescope varying with the altitude of the star observed; and the meridian marks employed to test the setting of the instrument are apt not to be fixed with absolute permanence.

Gill sought for remedies to reduce all these sources of error to a minimum, and the design was certainly original. In the hands of almost any other man it would have been condemned as experimental. We remember, in fact, while inspecting its construction at the works of Troughton and Simms, how Mr James Simms made some remark that meant:—'No one but Gill could have ventured upon so great a departure from the orthodox design of a transit circle.' It was not for seventeen years after his first application for a new transit circle that his request was granted, in 1896. Astronomers and engineers will read with great interest the description

of this splendid instrument, quite the best in the world. He had great difficulties to overcome which he met in the spirit of the tried engineer. A very serious one was the absence of good foundations for his meridian marks. In the end he dug pits of great depth and fastened his apparatus to the solid nucleus of the world, the very ancient geological formation called the Malmesbury beds, and invented an optical device of the highest merit for ensuring that certain marks, on the tops of his columns built over the pits, were exactly above certain points fixed on the Malmesbury beds. The stability of these marks is now the envy of all astronomers. So it was with all his difficulties. They disappeared under his skill as an engineer and designer of instruments. His manifold competency recalls a remark made by one of Lord Crawford's workmen at Dun Echt about Gill—'I wad na say what he may ken aboot astronomy, but this I wull say, that he'd mak' a gran' mason.'

In connexion with the new astronomy—of photography and spectroscopy—which was not a part of his youthful ideals, Gill was fortunate. It is admitted that fortune favours the brave, or at least that success breeds success. So it was here. The whole science of photographing, and then measuring on the plates, the positions of stars, comets, planets and satellites had its origin a few years after Gill arrived at the Cape almost in a chance. At p. cxlvi of the 'History' it is thus modestly described:

'In 1882 appeared the great comet of that year, first accurately observed by Mr Finlay (p. xlviii)—an event of great astronomical interest, not only because of the small perihelion distance of the comet, its extraordinary brilliancy, its visibility by day, and its actual observation up to entrance on the sun's limb (see p. clxiii), but because it was the first comet to be successfully photographed; and that success, coupled with the fact that excellent photographs of the surrounding stars were also shown on the plate, led to the first application of photography to the general cartography of the sky in the form of the *Cape Photographic Durchmusterung* and the subsequent great international undertaking of the *Carte du Ciel* (see p. cxxxi).'

Having learnt that local photographers had been able to get impressions of the comet, Gill fastened an ordinary

camera to a part of the equatorial driven by clockwork for counteracting the apparent diurnal motion of the heavens. Thus a long exposure could be given. His primary object was to let his friends at home see a true picture of this splendid object. But the photographs

'appeared to have a still wider interest from the fact that, notwithstanding the small optical power of the instrument with which they were obtained, they showed so many stars, and these so well defined over so large an area, as to suggest the practicability of employing similar, but more powerful, means for the construction of star-maps, on any required scale and to any required order of magnitude' (p. xlix).

This work was no sooner thought of than begun. He ordered special photographic lenses from Mr J. H. Dallmeyer and obtained a grant through the Royal Society from the Government Grant Fund. At once, also, he sent particulars to Admiral Mouchez of the Paris Observatory, who communicated them to the *Académie des Sciences*, and who then encouraged the brothers Henry to take up the idea. Their brilliant results marked an epoch in the history of astronomy.

Gill got excellent results with the new lens. But the amount of labour required for measuring star-places on the plates staggered him. It was at this stage that Professor Kapteyn, then of Leiden, wrote to him :

'If you will confide to me one or two of the negatives I will try my hand at them, and, if the result proves as I expect, I would gladly devote some years of my life to this work.' . . . 'I think my enthusiasm for the matter will be equal to (say) six or seven years of such work' (p. 1).

The actual period of this service by Kapteyn was double what he estimated. In his preface to the published results Gill says :

'At a time of great stress and discouragement he [Kapteyn] lifted from my shoulders a load of responsibility by his noble and spontaneous offer to undertake the measurement of the plates, the computation of the results, and the formation of the catalogue' (p. lviii).

The catalogue has 454,875 stars down to the ninth magnitude, and is of the utmost value for southern

sidereal astronomy. This stupendous piece of work rivetted these two men together in other researches, and each encouraged the other. Gill says:

‘Probably the most valuable result of the C. P. D. to science is the fact that its preparation first directed Kapteyn’s mind to the study of cosmical astronomy, and this led him to the brilliant researches and discoveries with which his name is now and ever will be associated’ (p. lviii).

Kapteyn’s greatest discovery in sidereal astronomy was told to the world, first at St Louis in 1904, and then at the Cape in 1905 during the visit of the British Association to South Africa. This discovery was that the great majority of stars, near enough to us to show proper motion, are moving in two great swarms in nearly opposite directions. This great discovery has revolutionised our conceptions of the universe.

While this catalogue by photography was progressing, Admiral Mouchez, at Paris, was hard at work following up Gill’s suggestion for the great International *Carte du Ciel*, under an astographic congress. Gill, with fifty-five other astronomers from all parts of the world, attended the congress at Paris in 1887, and, by ballot, was elected as its senior member. Thus he became *President d’honneur* of the permanent committee of the astrographic chart. The methods and instruments were standardised; and until his death the president continued to give to this great work a tone of accuracy and thoroughness, discountenancing all suggestions for slipshod methods.

One of the most delightful experiences met with by Sir David in his scientific career was when Mr Frank McClean, of Tunbridge Wells, a distinguished spectroscopist and amateur astronomer, presented the magnificent Victoria Telescope with the finest spectroscopic and photographic equipment. Mr McClean knew exactly what was needed for work at the new astronomy in southern skies, ordered the instrument from Sir Howard Grubb, and wrote in August, 1894, offering it to Gill for his Observatory. The joy experienced by this ardent enthusiast is shown in some words of his reply:

‘The splendid generosity of such a gift, the great scientific need which it fulfils, the prospect of the gratification of scientific hope and aspirations which I have long cherished

and had sorrowfully begun to abandon—all these have been constantly in my mind since the arrival of your letter' (p. 1).

We are also told of his first thought on receipt of the letter: 'Now here will be an opportunity to try how accurately the solar parallax can be determined with the spectroscope.' He had spent some of the best years of his life on solving that problem of the sun's distance. Three years previously he had expressed his opinion, now amply confirmed, that the spectroscope might fix the value very accurately. His idea was to measure with the spectroscope the speed at which the earth revolves round the sun, in miles per second, by observing stars towards and from which the earth is moving. Then, since astronomers already know the ratio of the sun's distance to the space passed over by the earth in a second, the sun's distance can be found in miles. This ingenious scheme was carried out after Gill's retirement, under his directions, by his successor Mr Hough, the measurements being carried out by Mr Halm, to whom the honour of carrying the idea to a successful issue must be ascribed. This method, even in a preliminary test, was found to compare well in accuracy with older methods.

In 1897 Mr Frank McClean visited the Cape, made valuable spectroscopic observations, and confirmed his splendid discovery of oxygen in some of the stars. But the equipment was not complete until 1901. At the opening ceremony Sir David gave an address on the transitional period of his lifetime, from the old astronomy to the new. He says:

'the old Astronomy, from the difficulties of her task, the beauty and precision of her methods, and the proved accuracy of her predictions, has earned for herself the acknowledged position of Queen of the Sciences' (p. 3).

The last few years of Gill's life at the Cape were very full years. The present writer visited him there both before and after the Gill transit circle and the Victoria telescope were set up; and it was evident at the later date that the supervision then required in the various departments demanded as much mental vigour as in any observatory in the world. Gill had a strong belief in the *mens sana in corpore sano*, and on most afternoons,

whenever possible, he was to be seen walking off through the grounds with golf-clubs under his arm. When the rare opportunity of a week's holiday arrived he would go off with his rifle for some sport in Natal or elsewhere.

In 1905 the British Association paid their visit, and on his shoulders fell most of the labour of preparation. The occasion was a great event both for visitors and hosts, and gave a great impulse to the promotion of science in South Africa. But the exertions told upon his health and so perhaps hastened his retirement; and he felt very acutely the death of his old friend, Admiral Sir William Wharton, R.N., who was attacked by sudden illness on his return from the Victoria Falls, and died at the Observatory. Yielding to the strong opinion of his doctor he asked for leave of absence from 1906. He retired in 1907, leaving in charge Mr S. S. Hough, F.R.S., who had been First Assistant since 1898, and who was afterwards appointed to succeed Sir David Gill as H.M. Astronomer at the Cape.

The 'History' closes with special references to his staff and their services, as it began with special references to the labours of his predecessors at the Cape. His last words read thus:

'On the 3rd October, 1906, my wife and I bade good-bye to our beautiful home, taking with us treasured memories of the many happy days spent under its roof, of the loyal and cordial support of my fellow-workers, and of the many other good and true friends we left behind' (p. clxviii).

His life at home was not one of idleness. His health was re-established. He worked hard on the councils of the Royal Society, the Royal Astronomical Society, and the Royal Geographical Society, was president of the British Association and other institutions, directed the Astrophysical Chart and Catalogue, pressed the claims of the great meridian arc, did everything he could to advance science, and, with Lady Gill, made his home in London a centre of radiating intellectual energy, and one attracting a great part of all that is admirable in human nature. It is no wonder that, when he died on January 24, 1914, everyone who knew him felt, not only that the greatest astronomer and the greatest moving force in

the astronomical world had been removed, but also one of the noblest of men.

The following extracts from letters written by some of the most eminent astronomers left in the world proclaim the sentiments of those who knew him well:—‘What a man! He has done more for our science than any of the contemporary astronomers. Nobody was his equal in mental and bodily power, always the centre in co-operative undertakings. How many progresses have we to thank him for! I never met a person of so noble a character, so mighty of friendship as Gill.’—‘Il est impossible de comprendre qu’une âme si honnête, une si belle intelligence, un si noble cœur nous échappent à jamais.’—‘We must think . . . of that memory, strong and stimulating, which will be to me . . . a rock of support and encouragement unbroken by death or by the passing years.’—‘The most manly among men, the kindest, warm-heartedest and above all truest of friends, the man who by his example and support has helped and encouraged me more than anybody else, to give a purpose to my life.’—‘What a privilege it was to know a man of such illustrious ability, combined with such simpleness of heart and nobility of character.’ One of his pupils wrote: ‘His was such a wonderfully exhilarating personality. After a talk with him everything seemed to be worth while, and everything seemed worth attempting; there was no failure in the atmosphere that he created.’ Another speaks of ‘His extraordinary patience with and kindness to all who needed his help and his unstinted generosity in giving his time.’ And a third says, ‘We all feel that we have lost something more than a friend, to me almost a father, who can never be replaced.’

GEORGE FORBES.

Art. 9.—SYNDICALISM IN NEW ZEALAND.

IN the year 1894 New Zealand passed an Industrial Conciliation and Arbitration Act, which it was fondly hoped would settle the industrial problem for all time and completely abolish strikes. For some years it really seemed as if the Act, with its subsequent amendments, was going to be a success. Students of economics and sociology came to New Zealand from overseas, especially from France and America, to study the effects of the new legislation; and, in America, New Zealand was for some considerable time referred to in the newspapers as 'the country without strikes.' That term can no longer be used, except in an ironical sense. A series of more or less sporadic outbreaks culminated at the close of last year in a general strike on a scale hitherto unprecedented in that part of the world, so serious in its character that at one time it looked as if the Dominion were trembling on the edge of civil war. Alike in its origin and in the successful manner in which it was grappled with, this industrial revolt displays many features of general interest, and conveys lessons which may be of value to students of industrial economics outside the arena of the fight.

The object aimed at in the Industrial Conciliation and Arbitration Act was to foster collective bargaining by the encouragement of the formation of unions, both by the workers and the employers; to settle disputes by conciliation, if possible; and, failing this, by means of arbitration before a judge of the Supreme Court, assisted by two assessors representing respectively the employers and the workers. Critics of the Act, at the time when it was passed, foretold that it would probably work well so long as things were prosperous and the Court was able to award an increase in wages or to bring about improvements in the conditions of work; but they were strongly of opinion that, if a period of depression supervened and it became necessary at any time to reduce wages, the workers would refuse to submit to such reduction and would resort to the old method of the strike. As a matter of fact, failure has come earlier than was anticipated. There has been no period of depression and no reduction of wages, but the Act has

failed completely in achieving the main object for which it was passed, namely the prevention of strikes.

For a time, as has been stated, it worked satisfactorily, inasmuch as industrial differences were settled by its means, and the weapon of the strike was temporarily laid aside. It soon became apparent, however, that the possibilities of settling disputes by conciliation had been very much overrated; and nearly all disputes of importance went before the Court for compulsory settlement. There was no lack of work for the Court to do, for the secretaries and other paid officials of the unions exercised their ingenuity in finding grievances; and there is no doubt that many disputes, which would not have arisen spontaneously, were brought into existence by a process of suggestion and incubation on the part of the officials. The Court usually went on the principle of conceding something to the men; and, as times were good, the employers were usually able to pass on the increased cost of production to the public. It is true that they were annoyed by the frequency of disputes, but on the other hand the awards of the Court gave them, as they thought, security for the period for which they were registered, usually two or three years. Before very long, however, a cloud appeared upon the horizon. There came a point when, without decreeing any reduction of wages, the Court came to the conclusion that it could not make further concessions to the workers; and immediately there were signs of dissension in the unionist camp. The Judge, on more than one occasion, was openly criticised and sometimes abused. The trades unions began to give less attention to the industrial part of their work and devoted themselves actively to politics. They became so many nurseries for the cultivation of socialistic ideas; and at the trades union congresses held from time to time socialistic resolutions of various kinds took a leading place on the agenda. The idea was fostered that, having got all they could from the Arbitration Court, the workers should organise with the view of gradually reconstituting the basis of society and converting New Zealand into a socialistic Utopia. The end kept steadily in view was what was called 'the socialisation of the means of production, distribution and exchange.'

For some time it was supposed that this ideal could

be attained by a peaceful process of evolution and by constitutional means. Progress, however, was comparatively slow. New Zealand is rapidly becoming a country of small farmers, to whom socialistic ideas, especially with land nationalisation as one of the main planks, by no means appeal. Some two or three years ago, more ardent spirits appeared upon the scene, imbued with the doctrines of the American association known as the 'Industrial Workers of the World.' These revolutionaries urged that constitutional methods were altogether too slow and indeed effete, and that 'direct action' was required. Openly, they urged organisation with the view to a general strike; privately, hints were dropped as to the efficacy of *sabotage* and dynamite in bringing the employers to reason. And, as will be seen later, a time came when these views were openly proclaimed.

Operations were first started amongst the miners, who, being on the whole less intelligent than the town artisans, were found more amenable to I. W. W. teachings. Another point by no means unimportant in the eyes of the revolutionary agitators was that the miners earned good wages and were liberal in their contributions of the sinews of war. Prominent among the syndicalist organisers were a Mr Hickey, a young New Zealander who had become imbued with I. W. W. teachings, and a Mr Semple, who had played the part of firebrand among the miners of Australia, and finally found it expedient to leave that country after having led an unsuccessful labour revolt. These men and others went through the country addressing the workers in violent and incendiary language; but for a time little attention was paid to them by the general public. Signs of coming trouble were, however, manifest when, at the instigation of the agitators, a number of miners' and other unions cancelled their registration under the Act, the effect of which was to enable them to strike, if they wished to do so, without incurring the penalties provided by the Act. That they meant business was shown unmistakably at Waihi. The miners cancelled their registration, but the engine-drivers refused to join in this movement, and formed a union of their own which they registered under the Arbitration Act. The syndicalist leaders thereupon denounced the

engine-drivers as 'scabs,' and called upon the owners to refuse to recognise the engine-drivers' union, which of course the owners emphatically declined to do. Thereupon, the miners were called upon to 'down tools,' and did so. For over twenty weeks a determined struggle went on between the two classes of workers. In the end the 'Reds' set up a reign of terror; riots occurred, in which there was some bloodshed; and one man was shot dead by a policeman whom he had attacked. In the end, the 'Reds' were completely defeated. The Government sent a strong force of police to the spot to protect the union of free workers; and these gradually increased in numbers to such an extent that the tables were turned and the 'Reds' had to retire from the field.

Baffled on this occasion, the syndicalist agitators were by no means at the end of their resources. They laid their plans for capturing, as they hoped, the whole of the unionists of New Zealand, with the idea of inducing them to organise for a general strike. They succeeded so far that they induced the United Labour Party, comprising those unionists who aimed at establishing an Utopia by constitutional methods, to meet them at a so-called Unity Congress, held in Wellington last July. It soon became apparent that what the Syndicalists, who called themselves the Federation of Labour, aimed at was not compromise but the absorption of the United Labour Party and its conversion to their views. They proposed that two bodies should be created—one, known as the United Federation of Labour, for industrial action by the 'direct' method, and the other, called the Social Democrats, for political action. To all intents and purposes, however, it was to be one and the same body, with the same officials, but to be called by a different name according to whether it was working industrially or politically.

At the outset of the proceedings, the Federation of Labour showed their hand by submitting what they termed a 'preamble' of the industrial section, which is almost word for word the preamble of the American I. W. W. It starts with the following proposition:

'The working class and employers' class have nothing in common. There can be no peace so long as hunger and want

are found among millions of working people, and the few who make up the employers' class have all the good things of life. Between these two classes the struggle must go on until the workers of the world organise as a class, taking possession of the earth and the machinery of production, and abolishing the wage system.'

The preamble further laid down that these conditions could be changed only by an organisation formed in such a way that all its members in any one industry, or in all industries if necessary, should cease work. Put in this way, the proposal seemed rather strong meat for the Congress; and the preamble was lost on a division by 207 votes to 115. Nothing daunted, the Congress committee brought forward a series of resolutions meaning practically the same thing as the preamble, but couched in more veiled language; and these were carried. For example, as the first of the objects of the Federation, the following was substituted: 'To organise systematically and scientifically upon industrial union basis, in order to assist in the overthrow of the capitalist system of industry, bringing about a co-operative commonwealth based upon industrial democracy.' Other resolutions providing for the organisation of a general strike, at the direction of the executive, were also carried. For a time it looked as if the Syndicalists had triumphed. A dramatic feature in the proceedings occurred when the chief organiser of the United Labour Party, who had for two years been stumping the country preaching against the syndicalists, announced his complete conversion to their views and at once placed himself in their fighting ranks. This gentleman was afterwards to take a leading part in the industrial revolt. He came over from America some three years ago, and is generally known as 'Professor Mills, of Milwaukee.' When examined before the Cost of Living Commission some time ago, he was asked what teaching or examining institution had given him the title of 'Professor,' and he replied in effect that it was given to him by an authority greater than any university, namely the people. There is no question, however, that he is a man of considerable ability, both as a writer and as a speaker, although his platform efforts are purely those of the mob orator.

The apparent triumph of the revolutionaries, so far

as the Congress was concerned, was short-lived. The adoption of the general strike resolutions brought about a crisis in the meeting. The representatives of the Amalgamated Society of Railway Servants withdrew in a body, the president stating afterwards, in an interview, that he found the platform of the Federation of Labour was 'Strike first, strike second, and strike all the time.' It is easy to understand the nervousness of the railway employees on this point, seeing that there is a superannuation scheme in connexion with the service, the benefits of which would be lost if the members went out on strike. A notable defection was that of the Hon. George Fowlds, a member of Sir Joseph Ward's ministry, who is an ardent single-taxer and had doubtless associated himself with the Congress on account of its policy in regard to the land. He is also, however, an employer of labour; and it was impossible for him to continue to co-operate with a body which denounced all employers as 'exploiters,' with whom war to the knife was to be waged. On the other hand, amongst the staunchest supporters of the general strike resolutions was a young Church of England clergyman, the Rev. Mr Money, who attended as the delegate of a body known as the Christian Socialist League. A number of other representatives of trades unions withdrew from the Congress; and the result was that the 'Red-Feds,' as they were called, were left in possession of the field. Thereupon they proceeded to elect an executive and to make arrangements, on the one hand as the United Federation of Labour for a general strike, and on the other as the Social Democrats for an active political campaign. They showed no lack of energy or determination. The leaders of the movement went through the Dominion, making inflammatory speeches on the Larkin model, openly inciting to violence. A more insidious and dangerous move was a determined attempt by one of the labour agitators to stir up discontent among the police, and to form an association among them on 'Red-Fed' lines. There is no doubt that the object was to undermine the loyalty of the police in view of the industrial insurrection which the 'Red-Fed' leaders had in their minds. Fortunately, the Minister in charge of the police department, the Hon. A. L. Herdman,

is a man of considerable acumen and great force of character. He at once announced that no association of the kind would be permitted among the police; that any grievances brought forward would be enquired into and, so far as possible, remedied; but that no authority could be allowed to intervene between the Minister, acting through the Commissioner of Police, and the members of the police force under his control. There was a great outcry at this, and some of the Opposition newspapers denounced the action of the Minister as an interference with the individual liberty of the constables, but Mr Herdman remained firm.

There is good reason for believing that the United Federation of Labour had laid their plans for a general strike in the month of February, 1914. There were two reasons for selecting this date, the first being that the waterside workers' agreement was to expire on January 31, and the agreement with the Seamen's Union on February 28. The second reason was that a general strike at that particular period of the year, when the farmers are busy with the harvest, and the export of wool and frozen meat and the passenger traffic on the steamers are most active, would create the maximum of inconvenience and would therefore be most difficult to deal with. It is only fair to add that a large number of the men were confident that no general strike would be actually necessary. They thought that, if the arrangements were completed for calling out the workers in the principal lines of industry, particularly in the transport trade, at such a busy season, the employers would have no alternative but to surrender at discretion and to agree to practically any terms which the men chose to impose.

Before describing the opening of the war, it may be interesting to give some particulars as to the conditions under which the seamen and waterside workers were carrying on their respective employments. It will doubtless come as a surprise to many people outside New Zealand to learn how well-off both seamen and waterside workers are in this Dominion. Under the agreement then in force, able seamen were paid 8*l.* a month, donkey-men 12*l.* a month (for six-hour watches), and

firemen and greasers 11*l.* a month, also for six-hour watches. In addition to this, overtime was paid at the rate of 1*s.* to 1*s.* 9*d.* per hour. With overtime, it was no uncommon thing for a donkey-man to draw higher pay than any officer except the captain; and a case has actually occurred in which, during an excursion on a holiday, a 'brass-boy' with the aid of his overtime drew as much money for one day's work as the skipper of the ship. Waterside workers received from 1*s.* 5*d.* an hour for stevedoring and general cargo work to 2*s.* an hour for carrying coal, and overtime rates ranged from 2*s.* 2*d.* to 3*s.* per hour. Both classes were probably better paid and better treated in New Zealand than similar workers in any other part of the world, the cost of living and other circumstances being taken into consideration. They had arrived at this happy condition on account of the comparative scarcity of this kind of labour in New Zealand and the determined pressure which they had applied to the shipping companies. There is a very general opinion that the latter were in some degree responsible for the outbreak of the present trouble. Their weakness in giving in to the men, it is urged, had led the latter to believe that their services were indispensable, and that any demand which they chose to make must be granted. The shipping companies, however, were not direct losers by the concessions, since they took care to pass the increase, and more than the increase, on to the public in the shape of higher freights and passenger fares.

Fortunately for the public, and unfortunately for the 'Red-Feds,' the struggle was precipitated at an earlier date than the leaders intended. The trouble began in a very small way, but it developed with extraordinary rapidity. There was a dispute between the Union Steamship Company and some shipwrights as to whether the latter should be paid for time spent in going to and from their work. It could have been easily settled by a reference to the Arbitration Court; but the shipwrights referred it to the Waterside Workers, a branch of the Federation of Labour, with whom the shipwrights were affiliated. It was significant of the arrogant temper of the men, that the waterside workers actually hung up the shipping while they held a 'stop-work' meeting to discuss the shipwrights'

grievances, the shippers meanwhile carrying on the loading and unloading of the vessels with such unionist labour as they found disengaged; and, when the men came back from the meeting, although they were immediately allowed to resume their work, in many cases they were not put back on the same boats as those on which they were previously engaged. Thereupon they stopped work in a body, and the strike began.

A conference took place, and the shipping companies offered to resume employment, if a fresh agreement on exactly the same conditions as before were entered into for three years. This was refused, and other attempts at a settlement proved unavailing. Violent and incendiary speeches were made by the leaders of the Federation of Labour. The wharf labourers in the principal ports of the colony were told to cease work, and did so. An attempt to work some of the ships with their crews and other free labour had to be abandoned on account of the violence of the strikers; and the situation, especially in Wellington, soon became exceedingly grave. The strikers, to the number of some twelve hundred, took possession of the wharves, and no work was allowed to be done. The chairman of the Wellington Hospital Board had to write a humble letter to the strike executive, asking permission for coal and other necessities to be unloaded for the use of the hospital; and this was graciously acceded to. It was soon seen that the police force of the Dominion was totally inadequate to deal with the situation which had arisen; and the Government decided to call for special constables to assist in maintaining order. The response was gratifying, even beyond the most sanguine anticipations. The farmers, indignant at the loss they were incurring owing to their produce not being shipped, volunteered in hundreds, and the townspeople were equally public-spirited. A large number of mounted men came down from the country, and many others volunteered to work the ships. In the ranks of the special constables, recruited mainly from the city, were to be seen lawyers, doctors, insurance managers, and professional men of all kinds, together with a large contingent of stalwart young fellows from the athletic clubs and other

organisations. The strikers were reinforced by members of the semi-criminal population to be found in Wellington as well as in other seaports; and there were one or two serious riots before the 'specials' got a grip of the situation. Stones, broken bottles, and other missiles were freely used; and on one occasion shots were fired from a revolver. Iron staples, with the points ingeniously turned up, were scattered in the streets, obviously with the object of maiming the horses.

The perfect discipline shown by the special constables, especially the mounted men, was beyond all praise. They marched through the streets, taking absolutely no notice of the abuse and insults of the crowd, although the language used against them was of the vilest and some of them were badly cut and bruised by the missiles showered on them. Not until the order was given to them to charge the crowd, did they attempt to retaliate in the slightest degree. A number of them had been in the South African War, while others had acquired the habit of discipline from service in the Territorial force. The Government scrupulously refrained from making any use of the Territorials as Territorials, believing that these should not be used in labour disputes; but hundreds of them, volunteering in their capacity as private citizens, unquestionably helped to save the country on this occasion from what at one time seemed like developing into a civil war.

Very soon the turbulent spirits among the strikers were overawed, and kept completely in hand. As the mounted 'specials' paraded through the streets, if one of the crowd ventured even to call out the word 'scab,' he was at once spotted, and two or three constables got off their horses, went straight for the man, and arrested him. Steady perseverance in this course soon instilled a feeling of wholesome respect into the minds of the revolutionaries. The Magistrates dealt firmly, but not too severely, with the cases brought before them. At an early stage, the leaders who had been inciting to violence and sedition were arrested, some of them sentenced to terms of imprisonment, and others committed for trial.

Meanwhile, however, the Executive of the United Federation of Labour called a general strike. There was strong dissension as to this course among the seamen and

among many of the drivers, but forces of intimidation were brought to bear upon the dissentients, and most of them came out. So also did the miners and the carters and others in the principal towns. The community, however, was now thoroughly aroused and determined to protect itself. Steps were taken to resume work on the wharves with free labour, as soon as the Government had sufficient special constables ready to ensure ample protection. It was probably only a coincidence that, when the free labourers were set to work, there happened to be a British man-o'-war in port; and her complement turned out on the wharf fully armed, and were put through their drill with a machine gun. It is fully understood, of course, that the crews of His Majesty's ships would be used only in the last resort to protect human life, and would not be allowed to interfere in any local labour dispute. Nevertheless, there is no doubt that the presence of the men-o'-war in Auckland, Wellington, and Lyttelton had a very sobering effect upon the more violent of the law-breakers. One of the strike leaders, who said that he himself was an old man-o'-war's man, warned his comrades not to fall foul of the bluejackets. 'A dozen of them,' he said, 'would simply go right through you.' The story is told of a strike emissary approaching one of the man-o'-war's men, and after indulging in the somewhat expensive process of seeing how much refreshment he could be induced to take, said to him, when he thought a favourable moment had arrived, 'I say, mate, if there was a row and you were ordered to shoot, you wouldn't do it, would you?' To which the bluejacket replied, 'That I would, and — quick.' Whereupon, the strike emissary retired discomfited.

In spite of these and other discouragements, the strikers were more stubborn than was anticipated. It was more than eight weeks before they finally acknowledged defeat. The employers were determined that the influence of the Federation of Labour must be broken. They therefore took up the position that they would not treat further with them in any way, and would not consent to re-engage any man who would not first become a member of a union registered under the Arbitration Act, so that, in the event of a breach of agreement, the employer would have some remedy. The Prime Minister,

Mr Massey, having done his best in the early stages to bring about a settlement of the dispute, determined that at all costs law and order must be maintained, and that any man who wished to work should be at liberty to do so without molestation or interference. These conditions were fully carried out with the aid of the special constables. The wharves for weeks were barricaded; no one was allowed on them without a pass; while the free labourers were protected by a strong escort of foot constables during the day and were housed in one of the Union Steamship Company's steamers at night. The drivers' strike did not last very long; and in the meantime the employers and others who drove the carts were protected by escorts of special constables.

Remarkably little inconvenience was suffered by the general public. The stoppage of the coal mines at first appeared to be the most serious feature in the situation. The cable, however, was promptly set to work, and cargoes of coal were diverted to New Zealand from South Africa, Singapore, and other sources of supply. The Railway Department, the freezing companies, the gas companies, and other large consumers, had fortunately taken the precaution of keeping large reserves in view of the labour unrest, and were therefore amply prepared for the emergency. Some of the smaller factories had to close down, and householders were beginning to get anxious when the first cargo from overseas arrived, and it was announced that close upon a hundred thousand tons would shortly be landed in the Dominion. Until the first collier put in its appearance, the miners, misled by the strike leaders, refused to believe in the existence of these overseas cargoes; and the actual arrival of some of the coal gave them a severe shock. Meanwhile, a large number of unionists, who had joined in the strike simply through fear and compulsion, began to grow restive. An attempt to produce a sympathetic strike in Australia proved a failure; and the supply of money from the same source fell far short of requirements. Most of the prominent syndicalists were either in gaol or under bail bonds; and, when at length the out-of-work seamen determined that they had had enough of it, the remaining strike leaders seized the opportunity of declaring that, since the seamen had 'crucified' them, it was useless to

continue the struggle, and the strike was formally called off.

An interesting feature of the seamen's strike deserves to be mentioned. At one stage of the proceedings the outlook was decidedly black; even the coastal traffic was practically suspended, as was also the service to Australia. Since the large cargo steamers and liners could be neither loaded nor unloaded, trade with the United Kingdom was also held up, even though the crews had not formally joined the strikers. An attempt made by the Government to keep up the mail service between the two islands by means of Government steamers had to be abandoned, because the crews refused work. At this point, the captains and officers of the Union Steamship Company came to the rescue. They placed themselves unreservedly at the service of the Company and of the public in any capacity. Some two or three steamers were fully manned with their aid, and the coastal service was resumed. Captains with extra certificates cheerfully served as deck-hands; and on one steamer there were no fewer than seven masters dutifully obeying the orders of a mate, especially selected because of his reputation as a strict disciplinarian. Needless to say, the latter took a grim pleasure in the novel situation in which he found himself. Engineers of every grade came forward with the same cheerful alacrity. They were willing to act in every capacity but one—it was found that professional pride or caste feeling prevented them from acting as firemen. The gap, however, was soon filled by enthusiastic amateurs; even leading professional men went below and worked like Trojans in the grime and heat of the stokehold. Even under these conditions the steamers made most creditable runs. In reference to the work of amateurs, it may also be of interest to add that some of the unskilled gangs engaged in unloading steamers did even better work than the professional stevedores, the explanation being that their lack of experience was more than compensated by utter absence of the 'ca' canny' principle.

Needless to say, the crisis was not without its influence upon politics. The session had been unusually arduous, but the Prime Minister and his colleagues rose to the

occasion. Mr Massey took an active part in the early negotiations for a settlement, Parliament being temporarily adjourned so that he might give his whole attention to the work. When the negotiations failed, the Government, while avoiding any appearance of partisanship, soon made it evident that they were determined at all hazards to maintain the authority of the law and the liberty of the subject. There is a general feeling that Sir Joseph Ward and his followers missed a great opportunity on this occasion. Instead of treating such a crisis as a non-party affair and giving their unreserved support to the Government in the maintenance of law and order, they showed a disposition to criticise what was being done. At a very critical period in the proceedings, when it was doubtful whether the Government would be able to hold its own, Sir Joseph Ward, who was doubtless misled as to what had actually taken place, made some remarks in Parliament about the action of the special constables in charging the crowd of rioters in Wellington, which were undoubtedly calculated to encourage the Federation of Labour, at a time when they were hard beset. The result is that Sir Joseph Ward has lost a good deal of ground, especially among the farmers and commercial classes, while Mr Massey has considerably strengthened his position in the public estimation.

The struggle has cost a good deal of money. The Government placed 100,000*l.* on the Supplementary Estimates to meet the expenses to which it was put; and it is doubtful if this will cover the whole of the liabilities. It is roughly estimated that the total cost in loss of wages, loss of trade, etc., will amount to close upon a million sterling, but it is generally agreed that the money has been well spent. The country has now been freed from an industrial menace, which was seriously restricting the investment of capital and was the more embarrassing and unsettling in its effects upon enterprise, because of the uncertainty as to when the threatened general strike would come, or indeed whether it would ever materialise at all. The air has now been cleared, and there is a revival of confidence throughout the country. There will be no further talk of a general strike among the present generation of workers. They

have learned a lesson by experience, which they would never accept when it was enforced upon them by precept, namely, that no British community will allow war to be made upon itself by one section of the people, without striking a blow in self-defence. Those whom Mr Massey called 'the lean brown men from the country,' the stalwart, sinewy, young farmers, tanned with their open-air life, are the heroes of the hour. They were certainly a most inspiring sight, and gave one a reassuring notion of our means of defence should New Zealand ever be invaded by a foreign enemy. Both men and horses were magnificent specimens, and their discipline was admirable.

Many of these men are well-off, but they felt that the occasion was one which called for personal sacrifice. Fathers and sons cheerfully left their farms at the call of duty, while wives and daughters remained behind, and worked long hours in looking after the interests of the farm. None of these men would have stirred a finger against the workers in the case of an ordinary strike. In fact, if there had been a genuine labour grievance, many of them would have been prompt to show practical sympathy with the men. They were determined, however, that, come what might, the country should not be given over to syndicalist agitators; and their action has effectively checked the movement in that direction. Even the less revolutionary socialists in New Zealand have had a set-back. They have assured us that, if the mines, shipping, and other enterprises were controlled by the State, New Zealand would become an Utopia, and in any case there would certainly be no more strikes. Yet the State coal-mines have always been a hot-bed of syndicalism, and the State coal-miners were among the first to 'down tools' at the call of the Federation of Labour. So too, as has already been mentioned, the crews of the Government steamers were among the first to join the strikers and refused even to carry His Majesty's mails.

In the closing hours of the Session, the Government put through, practically without opposition, an amendment of the Industrial Conciliation and Arbitration Act, to meet the case of trade unions refusing to register under that Act in order to be able to strike with impunity.

In effect, the amendment adopts the principle of the Canadian law, under which notice must be given of an intention to strike, and the grounds of dispute must first be investigated and reported upon, thus giving an opportunity for public opinion to act before work is actually allowed to cease. In terms of the final settlement, the recent strikers have been allowed to resume work only on condition that they signed an agreement registered in the Arbitration Court, thus making themselves subject to penalties if they break the agreement. The terms with respect to wages, etc., are practically the same as those in operation before the strike; but a new clause provides that preference of employment will be given to members of a union only so long as the union remains unaffiliated with any other union or association. Meanwhile a number of the strikers are still without work, the employers having probably determined to stand by the free labourers who came to their assistance. Many of these, such as the farm workers, find their new employment so lucrative that they are not disposed to go back to their former callings.

The Federation of Labour has thus received a crushing defeat, and it is probably not too much to say that syndicalism has received its deathblow in this country. The general prosperity of New Zealand has never looked better than at present; and with the revival of confidence it is certain that there will be a great increase of activity in every department of industry. I anticipate, therefore, that not only will the loss caused by the strike be soon made up, but that even the strikers now out of work will soon find plenty of demands for their services.

W. H. TRIGGS.

Art. 10.—THE SETTLEMENT MOVEMENT IN ENGLAND AND AMERICA.

1. *Toynbee Hall and the English Settlement Movement.* By Werner Picht, Ph.D. London : Bell, 1914.
2. *The Spirit of Youth and the City Streets.* By Jane Addams. New York : Macmillan, 1909.
3. *Twenty Years at Hull House.* By Jane Addams. New York : Macmillan, 1910. New edition, 1913.
4. *Handbook of Settlements.* Edited by Robert A. Woods and Albert J. Kennedy. New York : The Survey Associates, 1911.
5. *Young Working Girls.* Edited for the National Federation of Settlements. By R. A. Woods and A. J. Kennedy. Boston : Houghton, Mifflin, 1913.

I.

THE Settlement Movement has been called 'the most elementary expression of the feeling of humanity in the revolt against social misery.' This is entirely misleading. Its founders were no mere sentimentalists, in vague revolt against the general wretchedness of many of their neighbours; they were men with a perfectly clear conception of the forms and causes of social evils, and they set out to attack some of those evils by means of perfectly definite remedies. Prior to 1884, when the movement took shape as the University Settlement Movement, its purposes had been gradually defined by a succession of thinkers and workers. Frederick Denison Maurice and his immediate followers had shown, so early as 1850, that the hand-working classes needed above all else the friendly co-operation of educated men, and welcomed their help if offered frankly and without patronage. They had also realised the possibilities and the need of education, not as an instrument for the training of the young, but as an all-potent lever for raising the level of thought, interest, and human capacity among adult citizens. A few years later, T. H. Green and Ruskin, in their different ways, held up an ideal of good citizenship at which educated men and women should aim, as neighbours of the poor rather than as their superiors, as members of a single brotherhood rather

than as representatives of a ruling class. These conceptions of duty and of opportunity came to a focus in the mind of Arnold Toynbee, himself the immediate disciple of Green and Ruskin, and the no less direct follower of Maurice. His life, so tragically cut short, was the conscious expression of them: his activities and his aims were just those of the man who has determined to be, in relation to his less fortunate brothers, at once teacher, co-operator, fellow-citizen, and neighbour.

The practical genius of Samuel Barnett made possible the establishment of these ideals in a permanent institutional form; and Toynbee Hall was founded in order to open to all educated men the door of unassuming service of their neighbours along the lines already laid down. Every characteristic of this 'Mother Settlement' was in complete harmony with the convictions of those earlier idealists from whom the inspiration was derived. Its religious basis was freed from all connexion with the dogmas and the organisation of any Church; its educational work was to be independent of any system, and aimed at being simply a spontaneous sharing of knowledge and of interests; its citizen activities were those of fellow-citizens who happened to have more leisure than most; its neighbourhood work was the direct but unorganised expression of sympathy unbound by theories or any form of organisation. Indeed, this complete absence of machinery was peculiarly near the ideal of Maurice, just as the educational work was an almost exact reproduction of the chief features of the Working Men's College which he had founded in 1854. Barnett was never tired of insisting that, in the fight against social misery, what was needed was not machinery but personal service, 'not gifts but ourselves.' And this fluidity and formlessness he regarded as the true mark of a settlement as distinct from a mission.

It may be urged that such an ideal was not really compatible with the establishment of any sort of institution, since an institution must have some form of structure, and its purpose will inevitably be modified by the structure. It is at any rate certain that the original ideal has not been preserved. Both Toynbee Hall itself, and the settlement movement which its foundation inaugurated, have travelled far from the early aims;

so far, in fact, that to-day, at the end of thirty years' experience, past and present settlement workers are heard on all sides raising the cry that virtue has gone out of the movement, that living effort is being strangled by dead tradition, that method and mechanism have become tyrants and must be turned out ruthlessly, and—most serious complaint of all—that the old purposes and motives are inoperative, and a new inspiration is needed if the movement is to live at all.

The development of the movement furnishes some explanation of this change. Immediately after the founding of Toynbee Hall, Oxford House was established as a sort of counterblast to the proclaimed undenominational basis of the original settlement. This at once introduced a certain subordination to an existing organisation—the Established Church; it also at once confused the carefully made distinction between a settlement and a mission. For Oxford House has been both; and many succeeding settlements, especially those established by particular denominations, have linked themselves to the aims of a mission and disregarded the ideals of a settlement. But a deeper difficulty arose. The settlements were to be University settlements. The residents are chiefly drawn from the young and enthusiastic men and women who are at the very beginning of their careers, and come straight from an University in order both to learn and to do something real, intimate and valuable in connexion with social evils. But young men and women of twenty-three cannot very safely or advantageously be projected into the morass of city poverty with no better equipment than a vague impulse to serve or teach or learn, to be good neighbours and humble helpers. There must be some established and defined forms of service awaiting them. It follows that every settlement must have at least a nucleus of organised activities, with machinery and system enough to keep them running steadily in spite of the sudden incursions and equally sudden disappearances of the human agents who temporarily 'work' them. And this kind of organisation must be dominant in a settlement in proportion as its residents change rapidly.

There has followed a further change, most marked in the case of women's settlements. Preparation for social

work by careful study of conditions was one of the admitted purposes of the settlement movement. But the rapid development of a quasi-scientific sociology has caused this purpose to take a very definite form. Schools of scientific training for social service have been founded in connexion with many Universities, whose aim is to provide opportunities for systematic study of social conditions, together with practical experience of methods of social administration. Many settlements have supported this new aim in a double way: they encourage their younger residents to enrol themselves as regular students, and they allow the 'activities' of the settlement to be used as part of the 'plant' necessary for the practical education of the students. Two results follow, both equally inimical to the original settlement ideal. On the one hand, many people enter the settlement who are not residents or settlers at all, but merely birds of passage frankly using the settlement as a temporary training-ground which facilitates their entrance into the ranks of professional social workers; on the other hand, many settlements tend to become institutions for the training of inexperienced workers rather than the homes of experienced helpers of the poor.

These peculiar dangers affect only the women's settlements at present, for the simple reason that young women of twenty-three are humble and ready to admit their need of definite instruction and guidance, while young men, with less humility but more independence, are confident of their ability to pick up by observation all the experience they require. But it must be remembered that women's settlements now form the great majority: and the settlement movement must depend more upon women than upon men, so long as the necessary leisure and the will to use it in quiet social service are the possession of women rather than of men. For it must be admitted that young men of the leisured class have not hitherto shown any marked desire to devote themselves to the unostentatious work which a true settlement demands.

Enough has been said to show that the purposes of the original settlement movement have undergone a series of changes amounting almost to a revolution. Critically expressed, these changes imply a substitution

of machinery for life, of stereotyped activities for spontaneous service, of institutionalism for neighbourliness, of ulterior objects for the direct and simple aim of 'making friends with the poor.' And, so far as this critical expression is fair, it explains the partial failure of the movement. Settlements are not a great force, either in the guidance of public opinion or in the directing of social reform. They have been called the conscience of the nation. The description is only true on the cynical assumption that a practical nation has no time to listen to the voice of conscience. They have often tried—but failed—to raise the level of local politics; they have seldom even tried to influence the national treatment of the gravest social difficulties. It may be claimed that they have inaugurated some important reforms, and have set on foot some successful measures for the betterment of conditions. It is true that schools for crippled children, vacation schools, and the Children's Country Holidays Fund all had their origin in settlements; and that the Old Age Pensions Act was hastened by the work of a settlement. But the impetus in each case came, not from a settlement, but from an individual who happened to be connected with a settlement. Mrs Humphry Ward and Mr Herbert Stead are not settlement residents; and Canon Barnett began the work of sending ailing children into the country before Toynbee Hall existed, and would, it is fair to believe, have initiated his other works, such as the foundation of the Whitechapel Art Gallery, even if Toynbee Hall had never existed. None of these achievements can be called the direct work of any settlement. Indeed, in this country people do not expect the settlements to lead the way in big things, or to do anything more than plod along quietly in the unseen paths of neighbourhood work.

Yet it is easy to exaggerate this criticism. Part of it is obviously unfair. To judge settlements by the paucity of their achievements is to attribute to them a wholly alien aim. Their true purpose is best attained when, like the women of Periclean Athens, they are least heard about among men. To judge them by their lack of influence on public opinion or on politics is equally beside the point. In America—the only country in

which the movement has been imitated, and so vigorously that there are said to be more than four hundred settlements in the United States to-day—settlements are a real and obvious force. But the conditions are totally different, and the settlements are different too. In this country, in which social reform is, and long has been, one of the great departments of national politics, in which local administration has been established on very active if not very excellent lines for three generations, and in which organised labour has compelled every citizen to attend to the problems of social and industrial betterment, there is no need for settlements to lead the way into a new territory. Their task is a different one. All we ask of them is that they should deepen and make more real our consciousness of social difficulties and our desire to lessen them, while they continue, in unnoticed ways, to lessen those difficulties by quiet help and sympathy.

We are brought back therefore to the simple question, whether or not the settlement movement and the settlement ideal have within them the vitality requisite to make them a living force in the social advance of to-day. So far the whole analysis of their position has seemed to point to a negative conclusion. But perhaps a more hopeful view may emerge if we summarise briefly the obvious dangers of the present situation, and contrast them with the less obvious but equally certain elements of hopefulness.

First, and foremost, the complete institutionalising of settlements has been a real disaster. Settlements in England have, with few exceptions, been demoralised by the unfortunate passion of practical people for buildings, equipment, and all the visible external marks of 'something great being done.' This has resulted in a veritable crippling of the movement due to its own apparent success. Most settlements have cumbered themselves with expensive buildings which isolate them from the very neighbours whom they set out to reach more closely. This isolation is the greatest defect of the modern settlement. But it is accompanied by another, hardly less disastrous. Owing partly to their institutional form, partly to the heavy expense of upkeep, the settlements have found themselves compelled to shoulder

all the burdens belonging to an institution. Not only must part of their energy be drawn off to the small but depressing tasks of concocting annual reports and public appeals, but their proper activities are distorted by the constant necessity of doing or pretending to do big things in order to wheedle donations out of an apathetic public. It is this isolation on the one hand, and pretentiousness on the other, which explain the growing feeling of dissatisfaction among those who know the work of the settlements most intimately and believe in their possibilities most thoroughly. It is significant that the settlements suffer a continual loss of their best workers, who desert them, not indeed because they have lost faith in the aims, but because they find they cannot realise those aims until they are freed from the 'institution' and its trammels. In one case in London this revolt has led to the complete abandonment of the settlement, whose members—deserters only in name—are now revitalising the work in unostentatious forms in the same district, as 'settlers' without a 'settlement.'

In the second place, a serious confusion of aims has obliterated the original ideals. In a few settlements political activity has become the dominant motive. In several women's settlements, an antiquated tradition of social service has been allowed to creep in, and has turned the residents into patronising little mothers of the poor, contenting themselves with the giving of relief or assistance on the lines of any philanthropic society representing the charity of the well-to-do classes. In some of the oldest settlements—and this is true even of Toynbee Hall—numerous forms of activity, originally started with enthusiasm by earlier generations of residents, are allowed to survive though the life has gone out of them, thus forming a mass of odd jobs which have 'got to be done' because the doing of them has become a tradition of the place.

And finally, there is felt to be some deadness or dearth of vital enthusiasm in the whole movement at the present time. This is not a criticism on existing residents and workers; it would be unfair and entirely untrue to suggest that they are lacking in keenness or devotion. But the movement is not fully alive. It needs new inspiration, which shall act as an irresistible

appeal to the young men and women who feel the reforming impulse most deeply, and shall offer to them a completely satisfying motive and method. For it cannot be denied that the settlements are not now attracting the keenest would-be helpers of their generation, nor holding the majority of those whom they still attract.

It is by no means fanciful to suggest that the settlement movement, at the end of a single generation, now finds itself at the parting of the ways. Only two alternatives are open: the settlements may live on, as an accepted piece of social machinery, forming useful centres for specified forms of social work and observation, and for the training of inexperienced workers; or the whole movement may find a new impulse, strong enough to lift it out of the ruts of dead tradition and narrowed utility, and to make it once more a means of uniting and vivifying the aspirations of the best men and women among the hand-workers and the head-workers alike.

And herein lies the real hopefulness of the whole situation. The very dissatisfaction of which the indications are so patent is itself a sign of a re-forming, not of a destroying, impulse. The movement will not be allowed to slide into a backwater of useful machine work, for its keenest critics are just those men and women who believe most firmly in the essential fact of settlement as the source and fount of all that is most vital in the efforts on the part of one grade of the community to share its valuable things with the members of another grade. There must be settlement, not mere incursions of visitors from another sphere—that is the accepted principle. And settlement involves groups of some sort; else the strength of a common purpose is lost. It is not impossible to carry out the aims of settlement by living alone among the poor; but it is extraordinarily difficult to keep the drowsy coal burning, and attract others by its glow, if one lives and works apart. We find, therefore, that the very pith of the original settlement movement is still accepted as vital by those who feel the deadness of the existing movement; the best work will be the work of groups of settlers in poor districts, living in real neighbour-relations with the poorer citizens.

But what definite form shall their common purpose

take? On the answer to this final question all else depends; and no clear answer can yet be given. Perhaps, if Barnett were still alive, or if we possessed a Jane Addams in this country, the new purpose would already be taking shape among us. But at present we can affirm with certainty nothing more than this, that many men and women who care are feeling their way to the answer, and that they will find it by the penetration of their steadfast goodwill. Some fix their hope upon closer co-operation with the new educational impulse which is moving the hand-workers in all parts of England, appearing most obviously in the successful classes of the Workers' Educational Association. Others believe in a bolder and more whole-hearted sympathy with the industrial aspirations of working men and women—aspirations which most of us merely fear, but do not try to understand. Others, again, not greatly attracted by educational effort, and not prepared to throw in their lot with new industrial or social policies, fall back upon the simpler purpose of just knowing and trying to understand their neighbours, and lending them help in every direction to which the knowledge and understanding may point. It may be that the living motive will be found in a combination of all such purposes, unified, as they so easily may be, by the spirit of simple fellowship. But if we read the signs of the times aright, it is as certain that the uniting principle will be found as that the settlement ideal will persist; and the present generation will discover for itself the secret of re-forming and adapting to new needs the work begun by Maurice and continued by Toynbee and Barnett.

E. J. URWICK.

II.

WHEN the University Settlement was first transplanted from English to American soil, there were many public-spirited people in American cities who looked upon it as hopelessly exotic. They felt, as like-minded persons in France continue to feel, that under thoroughgoing republican institutions such an enterprise was anomalous and foredoomed to failure. Twenty-seven years' experience, however, has proved, with an overwhelming

accumulation of fact, that the settlement is a social device peculiarly well fitted to cope with some of the most serious needs of American national life.

Mr Bryce, in his 'American Commonwealth,' published in 1890, found gratifying signs of progress from the point of view of the statesman in every phase of his subject save one. The administration of the American city made a dreary, almost desperate picture. In fact, at that time, the patriotic American had begun to accustom himself to a kind of colour-blindness which simply excluded from attention the facts of the confused and apparently hopeless political situation in every large city of the United States. Spasmodic efforts were made to introduce the type of municipal reform which would place business men at the head of municipal departments; but it was found that the masses of the electorate preferred to trust leaders of their own—men with whom they had grown up, who knew their needs at home and at work, who shared their pleasures, who went to church with them, and respected, if they did not share, their ancestral traditions. The rebuffs met by the early reform movements made it clear that a way must be found into the background of the actual life of the supporters of the 'machine.' This fact was perceived just as the first struggling settlements were establishing their method. The settlements have only slightly by direct attack involved themselves in municipal campaigns; but history will probably show that they served materially to introduce the new strategy which is gradually making even the American city 'the hope of democracy.'

The leaders of the settlement system accepted out of hand the principle that municipal government should be serviceable to the conscious needs of the people, but they have striven, both through precept and example, to show that such service must be for the community as a whole and not for political favourites. One of the significant political changes in settlement districts is that to-day elective office-holders always point to substantial common benefits which they claim to have secured for their constituents as a whole. This motive has now taken possession of city politics in its larger phases; and the public-spirited candidate who combines standards

of honesty with those of enlightened social upbuilding is increasingly winning popular support. The marked progress which has been made in American cities in the provision of public baths, gymnasiums, and playgrounds owes much to the efforts of the settlements.

The really distinctive necessity for the settlement-house in American cities arises from immigration. It is an unconscionable anomaly that, to so large an extent, the churches of the established elements of the American people should have been ruled out of the contest so far as the vast majority of the urban working classes is concerned. Suggesting to them age-long embitterments, Protestant Christianity becomes a positively anti-social influence in a vast number of cases. In a less degree, other established institutions—always excepting the public schools—represent at least a negative attitude toward all the aspects of racial loyalty which the different types of immigrants express.

It will be seen, therefore, that the settlement-house, especially when the policy of religious neutrality is absolute, is a precise and happy prescription for this complicated and anxious situation. Maintaining an attitude of respect towards alien forms of faith, and animated by an historic and cultural sympathy with the inner spirit of the different nationalities and races, the residents of the settlement can penetrate the life of the immigrant colonies, can elicit confidence, remove misunderstanding, and even give something of that welcome to the new land of which the ingenuous immigrant has dreamed. Much is said in America about the necessity of assimilation. The settlement group is able to promote systematically, and with much loyal response, the process of adaptation to American standards. It accomplishes perhaps fully as much on the negative side, in preventing a form of injurious assimilation by which the different immigrant types would combine to form a collective and un-American standard of living and of life which might make a problem even more serious than that already connected with the extreme confusion of tongues with which most American cities are to-day familiar.

One specific way in which racial and religious cleavages produce a disastrous effect is exhibited in

nearly every municipal campaign. Though, outwardly and officially, appeals to the clannish prejudices of different civic elements are sternly decried by public sentiment, such appeals are constantly if indirectly made, and often have the effect of hopelessly dividing well-meaning voters where for the public good there should be no divergence of aim. The settlement-house has in numerous instances proved its value for anticipating and intercepting such methods, by systematically bringing together people of good will among the different elements of the population.

The settlements were for some years as voices crying in the wilderness the necessity of trade unionism. This doctrine made slow progress as against American individualism. It is clear, however, in the larger cities, that a substantial service was rendered in this way towards the organisation of labour and a more conciliatory relation between employers and workmen. Trade unionism among women, which has made remarkable progress during the past three or four years, is led by women of culture, nearly all of whom are, or have been, closely associated with settlement work. The labour problem which is most forcibly brought home to the American settlements to-day, as was the case at Toynbee Hall in the beginning, is that of the unskilled labourers, who are ordinarily below the level of patient, effective organisation. The serious alternative which is now being borne in upon the settlements is that between the spread of syndicalism, with a propaganda traversing practically all the efforts of the settlement, and a strong appeal to employers and trade unionists in favour of a form of industrial conciliation which will definitely encourage the growth of trade unionism among the lower orders of the workers.

But the distinctive quality of the settlement is to be found not so much in its attitude towards broad political and social reforms as in the influence which it exercises through the establishment of elementary human relations in the localities where it works. Growing out of the parish idea in a country where the parish is a homogeneous population unit, the American settlement finds precious value in so much of the local moral organism as remains where all the religious hatreds of European

history are smouldering. The tie of neighbourhood is one which all these people, most of whom have been villagers at home, instinctively recognise. As neighbours, the settlement workers are almost at once in a real sense naturalised into the local fellowship. It is as neighbours that they erect their system of personal, domestic, vocational, recreational and moral training, beginning with prenatal care and continuing through to adult years. Apart from formal education on the one hand and organised charity on the other, they have built up a programme of leisure-time interests which to-day is being adopted into the public-school system in connexion with the so-called School-Centres.

The neighbourhood work of the settlements is strongly infused with the spirit of democracy. The members of all the neighbourhood organisations created by the settlement, from little children upwards, make at least some slight financial contribution, and take some part in deciding how matters of common interest shall be conducted. At many settlements, there are club councils made up of delegations from the different clubs, which undertake very substantial responsibilities and exercise real authority in connexion with the general management of the group work of the settlement.

The most recent development, and one which is showing remarkable vitality, is that of the Neighbourhood or District Improvement Society. Such a result could be attained only at the end of years of consecutive, cumulative, comprehensive effort. To-day in many city neighbourhoods the settlement has a recognised position of leadership among the people as they are rising into the sense of, and acquiring a capacity for, effective local citizenship. The method is based primarily on the ease with which the citizen can be got to grumble. Grumbling in common is cultivated; and the public matters most commonly grumbled about are entered upon the programme for collective action. Among these are the care of streets and alleys; the removal of ashes and garbage; the reduction of the nuisances of smoke, noise and bad odours; the reduction of the cost of water supply; the improvement of sewers; the provision of places of popular assembly; the regulation of rapid transit facilities and charges. Every victory secured kindles the

feeling of civic capacity and the zest for organised local action. In New York, at the present time, the spread of these local improvement organisations under the auspices of settlement and other social workers is one of the most inspiring facts in the life of the city.

Developing thus new institutional facilities and fresh social initiative, the residents of the settlement, far from finding their occupation gone, place themselves in a position of greater responsibility than ever. The best friends alike of the School-Centres and of the Neighbourhood Improvement Societies see with increasing clearness the necessity of capable and resourceful leadership, in order to preserve standards both of work and play, to draw in the less alert and responsive members of the community by unremitting and ingenious effort; to see to it that the new forms of association do not weaken but reinforce the old—the home, the church, the informal intercourse of neighbours from door to door; to watch always lest new rallying centres may not perchance simply furnish a transition to degrading forms of recreation like that of the cheap theatre and the public dance-hall, or to acquaintanceships that are charged with political and moral corruption. The very increase in the complexity of social organisation and administration indicates the necessity of transplanting resourceful citizenship into districts from which indigenous civic resource has disappeared, and maintaining it there until civic self-sufficiency has ceased to be fortuitous.

It is such considerations as these that have led to a remarkable growth in the number of settlement-houses in the United States. For a score of years, each five-year period has seen the number doubled, until the total is now over four hundred. There is, of course, a very wide range in the quality of work done. Perhaps one-fourth of the total might be left out of account as being hardly worthy of the name. Not a few missions, with an essentially proselytising motive, call themselves settlements, to the injury of the broadly constructive purpose which is being wrought out at so great a cost. In other cases, a few children's clubs and a measure of doubtful charity work are deemed sufficient to establish a claim to a title which, by being thus sought, at least proves itself to have won wide-spread respect.

Chicago, which is, of course, the typically American large city, shows the most striking settlement achievements. Hull House, which for nearly a quarter of a century has been under the lead of Miss Jane Addams, is in some important respects the chief centre of the city's best life, as she herself is often called its first citizen. The foremost woman in the country to-day, she is looked up to as a leader and a shining example by a great number of women, to whom the settlement system has appeared a normal avenue by which to enter, through adventurous hospitality and neighbourly intercourse, into some of the most vital phases of municipal and national life. Since women engaged in settlement work outnumber men four times, whatever has been achieved in this direction may fairly be regarded as among the first fruits of the higher education of women in the United States. The importance of women's work is emphatically recognised in Chicago, which, largely as the result of the efforts of Miss Addams and her colleagues, recently qualified as the first great city in the world to extend the municipal suffrage so as to include women.

Hull House is, in the first place, a remarkably complete system of well-equipped facilities for every form of recreative and educational association, provided in a group of buildings covering two city blocks. It has a school of music and a school of art, in which peculiarly suggestive results are achieved. The settlement has its own well-equipped theatre; and the Hull House Players have just returned after giving a performance by invitation at the Abbey Theatre in Dublin. Miss Addams has always exemplified the ingenuity of tactful sympathy in relation to the immigrant. Greeks, Italians and members of other nationalities are encouraged to present the classic dramas of their respective races. In the Labour Museum, the handicrafts of the immigrants are cultivated; and such skill as is possessed by the older people finds an opportunity inspiring to them and instructive to their children. Hull House is the centre of the Juvenile Protective League, which covers the whole city and is perhaps the most effective agency in America for reaching the social roots of moral delinquency among children. All the equipment and organisation of Hull House, however, count for much less than its personnel—

a group of forty residents, with hundreds of allies, who among themselves include a substantial part of the knowledge and skill which formulate progressive social programmes and push on social reform in Chicago.

In New York, Boston and a few other cities, the settlements are linked together into effective federations. In Boston the federation includes twenty-five neighbourhood agencies; in New York, forty. Among the objects which are thus being pursued are, the elimination of competition and cross-purposes; the systematic raising of standards of work in each specialised branch of service at the different houses; the mission of experts in certain branches, such as domestic science, hygiene, and dramatics, from settlement to settlement; the organisation of large forms of recreation in which club members from the various houses participate; the combination of settlement workers in any particular city, with their neighbourhood constituents, in the advocacy of large measures calling for municipal and legislative action. The federations are thus serving to give the settlements a broad and strong front, to deepen and intensify their local knowledge and influence, and thus to utilise their collective powers in really statesmanlike activities.

Settlement-houses throughout the United States have recently formed themselves into a National Federation. It is intended that the Federation shall be something quite other than the innumerable national conventions. It is to be a working body, gathering by careful and comprehensive methods the total experience of the settlements as to matters of definite and peculiar experience, and thus creating a powerful organ through which the whole force of the settlement system can be brought to bear upon the different State Legislatures, upon Congress, and upon public opinion at large. The first fruits of this method, embodied in a work mentioned at the head of this paper, are shown in the collated evidence of two thousand experienced workers upon the question of young working girls in large cities. That the settlements are in touch with the centres of broadest influence, and may be enabled to carry the logical outcome of such studies into effect on a large scale, is shown by the recent appointment of Miss Julia Lathrop, of Hull House, to be

director of the new Children's Bureau which has been established by the national Government.

Nor are we to suppose that the benefits of the system are confined to the poor and outcast who directly profit by its efforts. It is generally agreed among settlement workers that one of the most important results of their efforts is to be seen in the reaction upon the educated classes. Well-informed observers have not unfrequently noted the effect of the settlement spirit and method upon the whole attitude of thoughtful people toward the profound problems of American democracy and of American cosmopolitanism. There is no doubt that the settlements have produced a striking change in the outlook of the colleges and universities, which are no longer dominated by that exclusive intellectualism which surprised Thomas Hughes and other socially-minded English visitors.

It is perhaps a sign of substantial achievement that American settlements have of recent years been the object of a considerable body of criticism. It is questioned whether, on account of their necessary financial dependence upon the rich, they can expect to have a significant rôle in the midst of the further developments of industrial democracy. It is often thought that municipal action will accomplish, upon a broader and far more comprehensive basis, the ends at which the settlements now aim. It is said that the settlements are no longer in the lead of progress, but are content to drop back into an attitude of mere eclectic philanthropy. The fundamental answer to all these objections is that, whatever may ultimately happen to the individual settlement-houses, a new spirit and a new method in the organisation of the common life have been developed; that this spirit and this method are spreading everywhere in city, town and open country; and that the settlement will in the end have been one of the profoundest influences in training the rank and file of democracy, rural as well as urban, to meet and solve, not in the bitterness of class hatred, but in the compact loyalty of an organic homogeneous nation, the great common issues which the national life shall evolve.

ROBERT A. WOODS.

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Art. 11.—THE ISSUES OF KIKUYU.

1. *Ecclesia Anglicana. An Open Letter.* By Frank, Bishop of Zanzibar. Third Impression. London : Longmans, 1913.
 2. *The Kikuyu Conference. A Study in Christian Unity.* By J. J. Willis, Bishop of Uganda. London : Longmans, 1914.
 3. *Proposals for a Central Missionary Council of Episcopal and Non-episcopal Churches in East Africa.* By Frank Weston, D.D., Bishop of Zanzibar. London : Longmans, 1914.
 4. *A History of Protestant Missions.* By Gustav Warneck. Third English Edition. Edinburgh and London : Oliphant, 1906.
 5. *Eighteen Years in Uganda and East Africa.* By Alfred R. Tucker, Bishop of Uganda. London : Arnold, 1908.
 6. *History of the Universities' Mission to Central Africa.* By A. E. M. Anderson-Morshead. New and Revised Edition. London : U.M.C.A., 1909.
 7. *Report of the U.M.C.A. for 1913.* London : U.M.C.A., 1909.
 8. *Report of the Foreign Mission Committee to the General Assembly of the Church of Scotland.* Given in by the Rev. J. N. Ogilvie, D.D., Convener. May, 1914.
- And other works.

THE first great forward movement in the evangelisation of East Africa was due to an act of comity in Missions. In 1857 David Livingstone, a Scottish Presbyterian in the service of the London Missionary Society, appealed to the Universities to send out some of their best men as missionaries. 'I go back to Africa,' he said, 'to make an open path for commerce and Christianity ; do you carry out the work which I have begun.' The appeal made at such a time could be addressed only to the Church of England, for the degrees and honours of the two Universities were then open only to those in communion with her, and very few Nonconformists were to be found at Oxford or Cambridge. Livingstone, moreover, knew quite well what he was about. 'It is deplorable,' he said, 'that one of the noblest of our

missionary societies, the Church Missionary Society, is compelled to send to Germany for missionaries, whilst other societies are amply supplied. Let this stain be wiped off.' The great Scotsman was as good as his words. Four years later, at the beginning of 1861, the first contingent of the Universities' Mission to Central Africa reached the mouth of the Zambesi. It consisted of Bishop C. F. Mackenzie, his sister, three clergymen and three laymen. They were not left to find their way into the centre of Africa as best they could. Livingstone the Presbyterian acted as guide to the Episcopalian party in navigating the river and penetrating the jungle, until the Bishop reached his goal—Magomero in the Shiré Highlands.

But co-operation was not limited to the practical work of association in African travel. Bishop Mackenzie wrote:

'Livingstone and his party come to our ordinary services. We have on board Morning Prayer and sermon on Sunday morning, and every morning and evening the reading of ten or twelve verses and a few of the collects. On Whitsunday I proposed having the Litany, and asked Livingstone whether he thought it would weary the sailors. He said, "No; he always used it himself." We have always had it since. They all attend Holy Communion.'

Mackenzie did not long survive his landing in East Africa. *His successor, Bishop Tozer, changed the base of the U.M.C.A. from the mouth of the Zambesi to the island of Zanzibar; but it could never be forgotten that the principle of missionary co-operation had been nobly illustrated by the help given by a Presbyterian to an Episcopal venture. On the other hand, the want of 'Comity in Missions' was sadly illustrated by the events of a few years later in Uganda. A party of C.M.S. missionaries arrived at the court of King Mtesa in July, 1877. This bold step aroused the Bishop of Algiers (afterwards known as Cardinal Lavignerie), who despatched to Uganda some members of the Mission of the White Fathers, an Order which he had himself established.* The result might have been easily foreseen. The first

* H. H. Johnston, 'Uganda Protectorate,' i, 223.

collision (in 1879) between the two Christian parties took place at a service conducted by Mr Mackay of the C.M.S. at the court of King Mtesa. M. Lourdel and others of the French mission were present, but refused to take part in the service. The King demanded the reason of this conduct; and a dispute between the two parties took place.

'I could not (writes Mackay) but feel sorry for the king and all present. This feeling of hopeless bewilderment made them say, "Every white man has a different religion." "How can I know what is right?" Mtesa asked. They went home and so did I. It is with a heavy heart that I think of the trouble now begun.'

The trouble was indeed serious. The Christians of Uganda, henceforth, were divided, some attaching themselves to the C.M.S., and others to the French Mission. The tragedy reached its climax on January 24, 1892, when in a great anti-English movement an attack was made on the Government fort at Kampala, and Captain Lugard, the Resident, was obliged to use his machine guns. The adherents of the C.M.S. fought for the British, those of the French Fathers against them. Many lives were lost and much destruction was wrought at the capital, Mengo.

On April 1, 1893, the British Government, represented by Sir Gerald Portal, Consul-General at Zanzibar, took over the administration of the Uganda Protectorate from the Imperial British East African Company. Sir Gerald at once devoted himself to settling questions outstanding between the English and French parties, using the services of Bishop Tucker of the C.M.S. and Mgr Hirth of the Roman Mission. A working agreement was obtained on the political side, and the Consul-General then attempted to obtain some measure of comity between the two Missions. Could they not agree as to separate spheres of missionary work? * At once the difficulties of the situation manifested themselves. Bishop Tucker replied, 'Our commission from our Lord to preach the Gospel to every creature forbids any such arrangement.' The Roman Bishop for his part

* 'Eighteen Years in Uganda,' i, 268.

declared that the Vatican would never sanction such a proposal. Pressed by Sir Gerald, the two Bishops refused to do more than state their present intentions. Mgr Hirth did not intend to work eastward, nor did Bishop Tucker intend to work westward. No formal agreement was made, but the suggestion of a working understanding no doubt reduced for the time the danger of further collisions. A previous conference between the English Bishop and the French Father Superior (Père Brad) held in 1890 had had little effect.

The success of the English and French Missions to Uganda stands in startling contrast with the relative failure to evangelise the tribes dwelling on the road, 700 miles long, which leads from the Port of Mombasa on the Indian Ocean to the entrance to Uganda at the north-east corner of the Victoria Nyanza. At Mombasa C.M.S. work had been started in 1844 by J. L. Krapf, but of direct missionary 'results' in conversions there was little to show. His own Society was not able to extend its work further. In a spirit of comity, however, he helped the United Methodists, in 1862, to establish a mission near Rabai on the mainland. This mission met with disasters from sickness and war, but by 1904 it had gathered about 1000 Christians at seven stations.* In 1877, however, when the C.M.S. mission to Uganda was started, there was no line of Christian communications to connect the new mission with the coast at Mombasa. The establishment of so long a line was a very difficult business, and it was not effected by the unassisted efforts of the C.M.S. In 1891 an industrial mission was founded by Scotsmen at Kibwezi, about 100 miles from Mombasa, and in 1898 it was moved still further inland to the Kikuyu Highlands, nearly midway between the Indian Ocean and the Victoria Nyanza.

The Scottish Mission was by no means too early in the field. The Uganda Railway was being built in the closing years of the 19th century; and on December 20, 1901, the first locomotive reached Kisumu on the Victoria Nyanza. This meant of course an increasing influx of Europeans, good and bad, and a great risk that the natives would be contaminated with the wrong kind of civilisation. It

* 'Protestant Missions,' p. 263.

was therefore of the utmost importance that mission stations upholding a Christian standard of conduct should guard the way to Uganda. Even now Christian reinforcements are sorely needed.

'At this moment the only C.M.S. doctor in the whole Protectorate of British East Africa is Mrs Douglas Hooper, who is doing all that her strength allows, and probably more than all. There is only one medical man on the C.M.S. staff for the Protectorate, and he is away on furlough.'*

It is reassuring, in these circumstances, to read that the Scottish Church has a qualified doctor, a nurse, and five hospital assistants at Kikuyu, and another qualified man with seven hospital assistants eighty miles off at Kenia.† The 'noble savage' of East Africa is afflicted with many diseases, a few of which he can indeed treat with real skill himself, but European medical aid is sorely needed and diligently sought for. In addition to the prevalent diseases and the usual accidents the Kikuyu district in 1913 had a visitation of plague and a severe epidemic of cerebro-spinal meningitis. The Scottish Missionaries had a time of very severe strain.

The American Quakers established an African Inland Mission almost contemporaneously (1898) with the Scottish Presbyterians, and not unnaturally in the same province. The district, some eighty miles long, extending from Nairobi (the capital of B.E.A.) on the south to the lower slopes of Mount Kenia on the north, has a healthy climate, a fertile soil, and a relatively large population. It is an ideal stepping-stone on the way to Uganda. Here at the present time the C.M.S. has nineteen missionaries, men and women, a few of whom are on furlough.

It was in 1907 that Mr Willis (now Bishop of Uganda), coming to labour in Kavirondo on the north-east coast of the Victoria Nyanza, found that four or five new Protestant missionary societies had entered the field since his last term of service. Recognising the possibilities of collision which such a state of things afforded, he began at once a series of conferences designed to remove so far as possible all occasions of misunderstanding

* 'The Challenge,' i, 106.

† Report of the Foreign Mission Committee (May 1914), pp. 319, 323.

and conflict. The most recent of these conferences is that held at Kikuyu in June 1913.*

The history of Christianity in East Africa from 1844 onwards supplies abundant evidence to show that a conference was needed, and that the Kikuyu Conference could not have been wisely delayed. In the early days missionaries and converts were few; and perhaps no African had a chance of realising that there could be more than one kind of Christianity. The stations, for the most part, were widely scattered; and it was hardly possible for a missionary to help or to hinder one who belonged to another Society. Missions in those days might have their histories written with only the slightest references to the existence of other missions.

This state of things existed no longer in 1907. The railway had been in existence for some years; natives of Central Africa were seeking work and pay away from home and were travelling down the line. English and French missions had (as we have seen) come into conflict in Uganda. Three well-equipped missions were working near one another (as nearness is counted in Africa) in the Kikuyu country and westward, while eastwards towards the coast of the Indian Ocean the C.M.S. and the U.M.M. were neighbours in the Rabai district. As the different missions extended their work, they were bound to come into lively contact if not into actual collision. The simpler native would be perplexed by the sight of differences and possibly repelled from Christianity; and the baser sort of native who wished to keep his evil practices together with the name of 'Christian' would be able to play off one missionary against another. Moreover, the Mohammedan propaganda is afoot. Swahili merchants have travelled up and down the line and left little communities of Moslems where they tarried. The cause of Christianity and not of a single mission is at stake. The general circumstances of Uganda and of British East Africa called for the making of an agreement between the societies of a far-reaching character with the view of avoiding unnecessary divisions in the face of Islam and Heathendom.

* 'Church Missionary Review,' lxx, 2, 3.

Theoretically speaking, the representatives of the Church of England should have opened negotiations not only with those who assembled at Kikuyu, but also with the missionaries of the Roman Catholic Church. But the history of the Church of Uganda showed that the latter were not willing to negotiate on any matter of importance. The White Fathers had entered the country in 1879 definitely as opponents of the C.M.S.; and the attempt made by Sir Gerald Portal, in 1893, to bring the two parties to an agreement regarding evangelistic work had failed, as we have already seen. The centralised system of the Roman Catholic Church and the consequent necessity of appeal to the Vatican, practically made negotiations with the English Bishops in East Africa impossible.

So the representatives of the Church of England, being practical men, turned in the other direction, and began to treat with the Presbyterians of the Established Church of Scotland, with the United Methodists, and with the American Quakers. The stiff ecclesiastic no doubt smiles at the mere enumeration of these names, and asks whether any good thing could be expected to come from the negotiations. But the men who were actively engaged in making and training disciples for Christ in Eastern and Central Africa were obliged to look at facts; and facts cried out insistently for some working agreement among the missionaries.

The facts referred to are such as these: (1) British East Africa is half as large again as the United Kingdom. (2) The native population is roughly estimated at 4,000,000, mainly Pagan to-day. (3) Of ordained clergy to minister to natives the Church of England has twenty-three Europeans and three Africans. (4) The country is now traversed by the Uganda Railway; and change of every kind is proceeding at a quickened pace. (5) The religion of the natives has little staying power; when it is forced into collision with Islam or with Christianity (as happens constantly) it yields to the higher faith. (6) The natives, owing to the changing economic condition of the country, are seeking for education, literary and industrial, and are betaking themselves to the different mission stations. From these they are learning different forms of Christianity. (7) The 'taught' native becomes a traveller in

search of work, and so becomes acquainted with other forms of Christianity besides his own. (8) Neither the Church Missionary Society nor any other Society can possibly overtake single-handed the work which is offering itself. (9) Comity of Missions is required, partly with a view to the best possible distribution of the Christian forces available, partly that there may be no actual setback to the progress of Christianity through the active disagreement of its representatives.*

The call for action has been urgent for some years, and it can hardly be said that the men who met in conference at Kikuyu in June 1913 acted precipitately. 'The Proposed Scheme of Federation' was not due to any sudden impulse, but was the result of much previous interchange of thought. 'The resolutions passed at the Kikuyu Conference were submitted,' Bishop Willis tells us, 'almost word for word as they now stand, to a similar Conference of British East African missionaries at Nairobi in 1909.' The delegates were fully aware of the importance of their proposals, and they held them back for four years' consideration, before they passed them as a 'Proposed Scheme of Federation.'

In one respect only in their procedure were the C.M.S. missionaries at fault. No invitation was sent to the Bishop of Zanzibar to attend the conference. 'Without notice or consultation,' writes Dr Weston, 'the action of two of the three East African Bishops forces the hand of the third.'† Yet Zanzibar, though distant from Kikuyu, is deeply concerned in what was done. 'Our missions in Ziguiland,' says the Bishop of Zanzibar, 'are not far from those of the Church Missionary Society; Mombasa diocese lies on our western boundary as well as to the North-West and North; our Christians move about in British East Africa and Uganda, while some are resident there for years at a time.' It was certainly a failure in comity to leave the Bishop of Zanzibar unsummoned to such a conference.

Yet there is great exaggeration in Bishop Weston's complaint that 'his hand was forced.' The Proposed Scheme of Federation was but a proposal after all. The

* Compare J. J. Willis, 'The Kikuyu Conference,' pp. 7, 9.

† 'Ecclesia Anglicana,' p. 18.

missionaries who met at Kikuyu recognised fully the fact that they were not plenipotentiaries. When they agreed that 'a Federation of Missionary Societies shall be formed,' they were aware that the home authorities of these Societies must be consulted before any scheme could be put into force. Moreover, the Societies in their turn were conscious of the limitations of their powers; and it was not till December 9 last, nearly six months after the Conference had been held, that the General Committee of the C.M.S. felt itself justified in pronouncing any opinion. They then gave a general sanction to the steps taken at Kikuyu, but added a carefully expressed qualification. The resolution is an important historical document; it runs as follows:

'That in pursuance of the Resolutions of the General Committee of 8 November, 1910, the Committee rejoice that further steps have been taken towards co-operation and mutual consideration between the missions at work in British East Africa, *with the full concurrence of the Bishops of Mombasa and Uganda.*

'The Committee understand that at the united missionary conference held at Kikuyu in June last there was no intention to take any steps involving alteration of the present ecclesiastical status of the missions and nascent Churches in the field, but only such steps as the missions concerned might rightly take *with any necessary sanction upon the part of the Church authorities.*

'Recognising that there are certain issues involved *which primarily concern the Church authorities* and which are not, at least at present, matters for consideration by this Committee, and without necessarily assenting to the details and the wording of the proposed scheme, the Committee wholeheartedly sympathise with the Bishops of Mombasa and Uganda and their brethren in their desire for fuller co-operation and advance along the pathway towards such re-union as may eventually be according to God's purpose.'

From the words underlined in this quotation it is abundantly clear that the Church Missionary Society recognised the fact that the Church must have its say authoritatively before the proposals of Kikuyu could become decisions. The matter which lies before Christendom in Africa and at home is a 'Proposed Scheme of Federation.' This scheme has to be ratified by all the

Christian bodies concerned. The Report of the Foreign Mission Committee shows that the Church of Scotland is considering it clause by clause. The careful language of this Report agrees with the resolution of the English Church Missionary Society in regarding all the steps hitherto taken in Africa as tentative. The resolution referring to Kikuyu begins thus :

‘The Committee record their gratitude to Almighty God for the notable Christian concord prevailing between the Missionary Societies in British East Africa, and rejoice to learn of the large measure of agreement as to methods in the prosecution of their common work which has been arrived at by the missionaries in conference at Kikuyu.

‘They note that the proposed Federation, while framed “with a view to the ultimate union of the Native Churches,” leaves unaffected the authority of each Society or Church within its own sphere, makes no alteration in the relations which at present exist between the missions and their home ecclesiastical authorities, and requires no sacrifice in the mission-field of essential principles maintained by the parent bodies concerned.’

In the same report the statement is made, ‘When the scheme assumes its final form, it will be duly reported to the General Assembly.’ All evidence shows that Kikuyu marks simply a cautious movement towards federation of missionary units in East Africa. The Scottish Report greets the re-union of Churches as a noble ideal, but it confesses that organic union is ‘yet in the future.’ It is difficult to discern that the hand of the Bishop of Zanzibar was ‘forced’ by any of the provisional proposals of Kikuyu. The missionaries, the Missionary Societies, and Christendom at home all alike hold their hands from action and give Bishop Weston and every other person concerned ample opportunity for criticising the scheme and helping to amend it.

I do not add, ‘Or for throwing it out,’ because the Bishop himself acknowledges that arrangements of some kind for comity of missions are necessary. He demands that the Proposals of Kikuyu be withdrawn, but he himself, under date of March 10, 1914, has put forward ‘Proposals for a Central Missionary Council of Episcopal and non-Episcopal Churches in East Africa.’ The Bishop

of Zanzibar is agreed with the Bishops of Uganda and Mombasa that co-operation in the mission field is not to be left to individuals and to chance, but should be guided and forwarded by a representative Committee. But Bishop Weston has not yet withdrawn in substance any of his criticisms on the particular proposals made at Kikuyu, though he has given some indication that he desires to modify the extreme severity of the language in which those criticisms were expressed. This original severity was perhaps due to the misapprehension under which the Bishop was suffering when he penned 'Ecclesia Anglicana.' Apparently he thought that the construction of a 'new African Church' (p. 17), in which Episcopalian and Presbyterian, Methodist and Quaker were to sink all their differences, was being hurried on, while Church authorities in Great Britain were allowed to slumber, vexed by no dreams of revolutionary change in Africa.

But we all know now that it was not so. However much the representatives of the Church Missionary Society and of the Church of Scotland Mission might dream of a united Church in days to come, they acted and thought at Kikuyu as practical men anxious to smooth present difficulties without calling forth fresh difficulties still more acute in the near future. Not a Union, but a Federation, not an Act even of Federation, but Proposals—this was the work of the peacemakers who met in June 1913. We trust that, when all the facts concerning the transactions at Kikuyu are fully known, the Bishop of Zanzibar will be found foremost in promoting comity.

We may now consider the special objections raised by Dr Weston to the proposals in question.

I. The first of the criticisms passed in his 'Open Letter' on the proposals suggests that the Bishop is strangely oblivious of some very important facts in the life of the Anglican Communion. The proposals, he complains, offer no safeguard for the retention of 'the Creed commonly called the Creed of St Athanasius.' The complaint is the strangest which could well be made when there is any talk of co-operating in any way with other Christians. The Church of England itself is divided over the 'Quicumque vult' by a breach which

the labours of nearly 300 years have not been able to heal. From the days of Jeremy Taylor, from the time of the Prayer Book Revision debates of 1689, and from the date of Charles Wheatly's 'Rational Illustration' (4th edition, 1724) attempts have been made to reconcile the Church of England as a whole to the minatory clauses of the Athanasian Creed. They have failed. The deadly wound which the attempt to enforce the use of this formula in its entirety on the Church has never been healed. The 'Quicumque vult' is a serious cause of division to-day.

So well is this fact realised by the Episcopate as a whole that the Lambeth Conference of Bishops of the Anglican Communion has never included 'the Athanasian Creed' among the articles described as supplying a basis for re-union. So lately as 1908 a strong committee of forty-six Bishops, drawn from all parts of the world, reported to the Conference as follows:

'The Committee, having had under consideration the liturgical use of the "Quicumque vult," would point out that the existing divergence of practice in the various churches of the Anglican Communion, together with Resolution 11 B of the Lambeth Conference of 1888, shows that the use or disuse of this hymn cannot be made one of the terms of communion.'

The relevant part of the resolution (of 1888) referred to lays down:

'That in the opinion of this Conference the following articles supply a basis on which approach may be by God's blessing made towards Home Reunion:— . . .

'B. The Apostles' Creed, as the Baptismal Symbol; and the Nicene Creed, as the sufficient statement of the Christian faith.'

If the Bishop of Zanzibar wishes to go behind this decision of the Episcopate of 1888, he risks bringing about disunion within the Church of England itself. And what attitude does he intend to take up towards the Church in the United States? The 'Quicumque vult' has been absent altogether from the American Prayer Book since 1789; and the Eighth Article of Religion has been so emended that it contains no reference to this confession of faith. Does the Bishop desire to put the

Church in the United States out of communion with the Church in Zanzibar?

The Holy Catholic Church of Japan ('Nippon Sei Kōkwai') must also, it appears, be repudiated by the Bishop of Zanzibar, for the Second Article of its Constitution reads, 'This Church doth . . . profess the faith as summed up in the Nicene Creed and that commonly called the Apostles' Creed.' The Japanese layman has no damnatory clauses to repeat; and the 'Quicumque vult' is reserved for its original use—the instruction of the clergy. It is appointed as an examination subject for Deacons' Orders by the Third Canon of the 'Nippon Sei Kōkwai.' In other words, the 'Quicumque vult' receives the same treatment as the XXXIX Articles. Again, does the Bishop unchurch the Church of Ireland, which for its size is second to none in its noble supply of men for the mission field? In Ireland no one, clergyman or layman, is bound to repeat the clauses which divide us in England. If any fact is plain, it is plain that the retention of the 'Quicumque vult' cannot be made a condition of intercommunion among the Churches which claim kinship with Canterbury.

II. Another important criticism which Dr Weston passes upon the proposals of Kikuyu is that they do not safeguard Episcopacy. To this it may be answered that no question was raised as to this important subject. The subject proposed at Kikuyu was, How can a Church acknowledged to be Episcopal co-operate on right lines with Churches or Christian bodies acknowledged to be non-Episcopal? Episcopacy itself was safeguarded by the close connexion existing between the men of the C.M.S. in East Africa and the Church of England at home.

But the criticism was apparently intended to cut deeper. The proposals contemplate the recognition by an Episcopal Church of the ministrations of non-Episcopal Christians. We must ask, therefore, Can this recognition be given consistently with the principles of the Church of England as set forth in the Prayer Book, the Ordinal, and the XXXIX Articles? * Now a study

* That these three documents do in fact embody the distinctive principles of the Church of England in Discipline, in Worship, and in Belief appears from the fact that they are presented to candidates at the

of the Ordinal shows clearly that the Episcopal system is regarded in the Church of England as a necessity. There *must* be Bishops, Priests, and Deacons—three Orders of Ministers established on one plan of inter-related parts. The first rubric to the 'Form and Manner of making Deacons' enjoins that there shall be a sermon 'declaring . . . how necessary that Order (the Diaconate) is in the Church of Christ.' A similar rubric introduces the 'Form and Manner of ordering Priests.' That Bishops are regarded as necessary is shown by the whole contents of the Ordinal. Therein it is directed that the Bishop (unassisted) is to lay his hands upon those who are to be made Deacons, while the Bishop (with the priests present) is to lay his hands 'upon the head of every one that receiveth the order of Priesthood.'

Finally, the whole matter is summarily declared in the words of the preface to the Ordinal:

'No man shall be accounted or taken to be a lawful Bishop, Priest, or Deacon in the Church of England, or suffered to execute any of the said Functions, except he be called, tried, examined and admitted thereunto, according to the Form hereafter following, or hath had formerly Episcopal Consecration, or Ordination.'

This clause (based on the Ordinal of 1552) was made more explicit in 1661 to meet the disorders of the Church. Episcopally ordained clergy had been ejected from very many places during the Commonwealth; and their parishes were now served by Presbyterians, Independents, and even by wild sectaries. Many of these had not been 'called' or 'admitted,' and the old organisation of the Church was all but gone. The principle then definitely accepted by authority in 1661 was that no one may minister in the Church of England without Episcopal Consecration or Ordination. Further, in view of the conditions of the time, it was reasonable that, when once the principle had been laid down, it should be rigidly adhered to. Confusion was reigning supreme, and Sir Walter Scott's description (in 'Woodstock') of two men struggling to occupy one pulpit is no fiction.

time of their ordination to receive their assent. The candidates are not asked whether they are 'Catholic' or 'Protestant,' nor whether they have experienced 'Conversion,' but they are expected to be prepared to give their assent to these three authoritative books.

Victory might remain in such a contest with the more ignorant and fanatical.

But now a decisive question must be put, Is the principle so clearly formulated in 1661 to be the last word to be said in the British East Africa of the 20th century and in the mission field generally? Is no rider to be attached, when the principle is applied along the Uganda Railway, and when Episcopal Englishmen meet Presbyterian Scotsmen outside Great Britain?

It is, then, to be noted that the Episcopal system is asserted in the Preface to the Ordinal affirmatively for the Church of England, but that no repudiation is made of any of the systems adopted by other Churches or Christian bodies. It is declared that the three Orders are scriptural and apostolic, and therefore that they are to be maintained 'in the Church of England,'* but it is not said that ministrations are invalid wherever the three Orders are not found. No other Christian system is attacked. The preface to the Ordinal takes up strong defensive ground; it asserts that 'From the Apostles' time there have been these Orders of Ministers in Christ's Church; Bishops, Priests, and Deacons.' It does not, however, maintain that the Episcopal system is Catholic or universal according to the threefold test of the Vincentian Canon ('quod ubique, quod semper, quod ab omnibus'), but only that it belongs to the 'quod semper.' It is, therefore, permissible to a faithful member of the Church of England to admit, e.g. (if the historical grounds seem to him to be strong enough) that there existed also a Presbyterian system in the Apostolic and later generations of the ante-Nicene Christian Church. In the Ordinal, the most authoritative document in the matter we are considering, the 'Ecclesia Anglicana,' while confessing her own whole-hearted adhesion to the Episcopal system, deliberately abstains both from condemning other systems and from denying the efficacy of the ministrations of non-Episcopal Churches. Does the Bishop of Zanzibar regard the Ordinal as therefore, by defect, heretical?

III. A third important criticism passed by the Bishop on the proposals of Kikuyu is substantially contained in

* This phrase is repeated with emphasis in this Preface.

that which has just been discussed. The scheme 'does not provide a Priest for the Celebration of the Holy Communion.' The Kikuyu proposal under this head is, 'That the administration of Sacraments shall be normally by recognised Ministers of the Church occupying the District.' Now the first comment which is to be made with justice on this formula is that it does *not* imply (as the Bishop's criticism might suggest) a movement towards ecclesiastical irregularity, but just the reverse. As regards the Celebration of the Holy Communion it means that an attempt is to be made to improve present conditions in British East Africa. A recognised minister is (so far as possible) to be made responsible for the due Celebration of the Eucharist.

And here it is necessary to put one side of the case (which is sometimes ignored) quite plainly. Those who wish to prove to demonstration that the presence of a priest has been held necessary by the Church from the earliest times to secure a valid Eucharist set themselves an impossible task. Can they explain the implication of such a passage as Matt. xviii. 20* without most serious misgiving? Can they turn back the evidence of Didache X with its direction that 'prophets' (who may or may not be 'priests') are to be allowed to offer the Eucharist in any terms they please? Can they feel quite sure that Tertullian expresses only the Montanist view when he writes ('de Exhort. Cast.' 7), 'Ubi tres, ecclesia est, licet laici'? Can they be certain that the statements asserting the priesthood of the laity which occur down to the fourth and fifth centuries were merely otiose?† Did laymen never act upon them? and, if they did so act, did they indeed draw upon themselves any ecclesiastical censure for the action? Doubts on these points are too deeply founded to be set aside. The doctrine that the action of a priest is necessary to secure

* 'For where two or three are gathered together in my name, there am I in the midst of them.'

† Ambrosiaster (quoted by Lightfoot, 'Philippians,' page 185, note) writes: 'In lege nascebantur sacerdotes ex genere Aaron Levitae; nunc autem omnes ex genere sunt sacerdotali, dicente Petro Apostolo, "Quia estis genus regale et sacerdotale," etc. Ambrosiaster applies the text (1 Pet. ii, 9) to individuals, though the reference of the words is in the first place collective to a priestly community (*Hort in loco*).

a valid celebration of the Eucharist is not, in the full sense of the word, 'Catholic.'

Both the Church of England and the Church of Rome appeal to Scripture and to History in support of the views which they severally take as to the Threefold Ministry and the necessity of a priest for the Eucharist. But the Church of England, in revising her Ordinal in 1552 and again in 1661, took to heart a lesson from experience. She realised the truth that universal statements are liable to revision from time to time as fresh evidence is accumulated. So she did not commit herself to the position that Episcopacy prevailed in the days of the Apostles and in the succeeding generations as the only lawful form of Church Government. Her statesmen-scholars had learnt how difficult it is to prove the existence of a universal custom and absolute rule. So, with English moderation and practical common-sense, the men of 1552 and of 1661 were content to assert that the Episcopal system which they had received was Apostolic and primitive. Every other 'particular or national church' (Art. 34) was left to read Scripture for itself and to establish the same conclusion for its own system, if it could.

A crisis big with the future of East and Central Africa has overtaken religion in these opening years of the 20th century. If at such a time an unproved theory of Orders or of the efficacy of the Sacraments is allowed to prevent Christian federation and so to check the progress of Christian missions, East Africa in its present state of semi-awakening may fall back either into a revived heathenism (with Voodoo practices!) or into a superficial Mohammedanism. The 'Issues of Kikuyu' might well be submitted to the 'Lambeth Conference' of the Bishops of the whole Anglican communion. But, as the Conference does not meet this year, the business will come, on July 27, before the Central Consultative Committee (18 members—six from Great Britain and Ireland), which might be described as the quintessence of it. The next word is with this Committee.

W. EMERY BARNES.

✓ Art. 12.—ROGER BACON.

1. *Roger Bacon, sa vie, ses oeuvres, ses doctrines, d'après des textes inédits.* By Émile Charles. Paris: Hachette, 1861.
2. *Roger Bacon: Essays contributed by various writers on the occasion of the commemoration of the seventh centenary of his birth.* Collected and edited by A. G. Little. Oxford: Clarendon Press, 1914.
3. *Rogeri Baconis opera quaedam hactenus inedita.* Edited by J. S. Brewer. Public Record Commission, 1859.
4. *The 'Opus Majus' of Roger Bacon.* Edited by J. H. Bridges. London: Williams & Norgate, 1897-1900.
5. *The Greek Grammar of Roger Bacon, and a Fragment of his Hebrew Grammar.* Edited by Rev. E. Nolan and S. A. Hirsch. Cambridge: University Press, 1902.
6. *Opera hactenus inedita Rogeri Baconi* (fasc. 1 *Metaphysica*; ff. 2, 3: *Communia Naturalium*; f. 4: *De Celestibus*). Edited by R. Steele. Oxford: University Press, 1905, etc.
7. *Un fragment inédit de l'Opus Tertium de Roger Bacon, précédé d'une Étude sur ce fragment.* Edited by Pierre Duhem. Quarrachi, 1909.
8. *Fratri Rogeri Bacon Compendium Studii Theologiae.* Edited by H. Rashdall. Aberdeen: University Press, 1911.
9. *Part of the Opus Tertium of Roger Bacon, including a fragment now printed for the first time.* Edited by A. G. Little. Aberdeen: University Press, 1912.

THE modest ceremony which took place on June 10—the unveiling of Mr Hope Pinker's statue of Roger Bacon in the Museum at Oxford—may be taken as a recognition by his University of the efforts of European students in recent years to elucidate the work and to publish the writings of one of the greatest of Oxford men. His own Order chose its most learned and famous member to do honour to its long-forgotten son; Rome sent from the Vatican the Vice-Prefect of its library, a polished medievalist; the University of Paris, his second Alma Mater, despatched as her representative that one of her distinguished sons who has done most to make his work familiar in France; the Collège de France, a

monument of the French return to classicism, and the Institut, the intellectual centre of modern France, joined in the celebration, and emphasised the international character of his fame; and English science, in the person of one of its titular heads, handed over the statue to a Chancellor of academic as well as political distinction.

It is not inopportune at such a time to endeavour to trace the history of the change in Bacon's position from contempt to reverence in the estimation of modern Europe since the Renaissance, and to gather up what is known or can be reasonably assumed as to his life, his writings, the teachers he followed, his doctrines, and their influence on his contemporaries and successors. At no time since his death could such an enquiry have been entered on with an equal wealth of materials; and, though many gaps occur in our knowledge which are hardly likely to be filled, we have sufficient facts to ensure a general accuracy of outline in our picture.

The first mention of Roger Bacon in modern literature is made by Pico della Mirandola, the brilliant young nobleman and friend of Lorenzo de Medici. A marvel of classical learning—witness his famous positions '*de omni re scibili*' ('*et de quibusdam aliis*,' as Voltaire wittily remarked)—his writings show much knowledge of the great teachers of the 13th century, and a not inconsiderable acquaintance with some of them only to be read in manuscript, including the '*Opus Majus*,' the '*De Erroribus Studentium Theologie*,' and the '*Compendium Studii Theologie*' of Bacon. Pico's interest in the Cabbala, which he took to be a system as old as Abraham, but which we now know to be, in the main, a creation of the 13th century, led him to a general attack upon astrologers, in the course of which he reflected very severely on Bacon for his credulity and his reliance on magic and astrology, while in another work he ridiculed the explanation of the moon's action upon the tides, which Bacon had adapted from Grosseteste. Pico's nephew, Francesco, repeated the attack; and to him and Pico may be ascribed the origin of Bacon's European reputation as a magician. It is probable that the strictures of Pico were one of the contributory causes to the printing of Bacon's epistle '*De Secretis Operibus Naturae et de Nullitate Magiae*' in 1542, which gave

direction and a colour of foundation to the growth of the popular legend of Bacon as a magician; though it existed long before, as we know from the well-known lines of Gavin Douglas in the 'Palice of Honour,' written before 1520 :

'The nigromancie thair saw I eik anone
Of Benytas, Bonge, and Frier Bacone,
With mony subtill point of juglary.'

To what an extent this reputation had become an established tradition may be seen from Bale's account of Roger Bacon in the first edition (1545) of his biographical dictionary of English writers, the famous 'De Scriptoribus.' He calls Bacon a 'Prestigiator et magus necromanticus,' who used his evil powers at the will of the Roman clergy, though he allowed that Bacon was 'in omni literatura prophana percelebris, mathematicus presertim et philosophus eruditus.'

Such a censure by an author professing, and in general reaching, a high standard of accuracy, no doubt aroused attention. John Dee, a scholar of high attainments and great powers, set about the composition of an Apology for Roger Bacon, entitled 'Speculum Unitatis,' in which it was proved 'that he had wrought the greatest marvels naturally and by methods which any Christian man might use, though the unlearned populace might see in them the work of devils.' The work was completed in December 1557 but never printed. John Leland, the famous antiquary, who had for years been making collections for a work resembling Bale's, had owned and read some of Bacon's treatises. On his death in 1556, Leland's collections fell into the hands of Bale, who incorporated them with his own work and issued a second edition in two volumes (1557 and 1559). In this edition Bacon is described as 'Philosophus acutissimus . . . [qui] sui seculi unicum plane miraculum diceretur . . . mathesi peritiae incredibilis sed absque necromantia.'

Every one is more or less familiar with the popular form of the legend—how by means of a perspective mirror Bacon could show an enquirer what was going on in distant lands; how he was able to destroy a besieging force by means of his burning-glass; and how he

constructed a head of brass which should reveal to him all wisdom, if it had not been unfortunately destroyed. Of these three wonders, two—the mirror and the burning-glass—are plainly based on Bacon's real achievements, the brazen head being an introduction from well-known sources. The burning-glass and its destructive powers are a favourite topic of Bacon's, while there can hardly be a doubt that some arrangement of lenses which amounted to a telescope without the enclosing tubes was made by him. Such an arrangement is known to have been invented by Leonard Digges, who died in 1571, from his study of Bacon's works. Towards the close of the 16th century the legend took a concrete form in a chap-book, 'The Famous Historie of Fryer Bacon,' and in a play, Robert Greene's 'Honourable History of Frier Bacon and Frier Bungay,' which was performed in 1592 and printed in 1594. Though the date of the earliest print that we have of the chap-book must be later than this, there can be no doubt that it was the source of the play, and that it was itself derived from an English translation of the 'De Secretis Operibus,' not printed till 1597.

In the early years of the 17th century an enterprising young professor of Marburg—a city which had a special relationship with the English Reformed Church—directed attention to the scientific side of Bacon's work by publishing two sections of the 'Opus Majus,' the 'Perspectiva' and the 'Specula Mathematica' from Oxford manuscripts; while Bacon's treatise on the care of health, 'De Retardandis Senectutis Accidentibus,' had already been printed in 1590. The publication of these works put Bacon's fame on a solid foundation, and excited a curiosity as to his writings which became more widespread as time went on. Certain coincidences of language leave little doubt that his work was known to his namesake, the great Chancellor. Selden, in his 'De Diis Syris' (1617), vindicated him from the suspicion of magic; he also collected his writings, and was engaged on an edition of his works so late as 1653. Sir Joseph Williamson, Secretary of State and President of the Royal Society, copied out some of his treatises with his own hand.

In the early years of the 18th century a new side

of Bacon's work was revealed to the learned world by Hody, who in his '*De Bibliorum Textibus*' (1705) made a considerable number of extracts from that part of the '*Opus Minus*' which dealt with Biblical criticism. Every fresh proof of his many-sidedness only made it more imperative that his works should be printed; and, after Mead had devoted some time to the task, it was finally taken in hand by Dr Jebb, who issued an edition of the '*Opus Majus*' in 1733-34 (reprinted at Venice in 1750). It is upon this work that all modern judgements of Bacon are founded, and by it his place among the teachers of the world must be determined.

Of the early life of Bacon we know but little. He came of a well-known Anglo-Norman family which had a habit of taking the losing side in a fight, a characteristic which was certainly not unmarked in his own career. Before his birth the Bacon lands in Normandy were confiscated by Philip Augustus for faithfulness to King John; and those in Norfolk were sequestered for opposition to him. A tradition which dates from the early part of the 15th century asserts that Roger Bacon was born at Ilchester near the borders of Somerset and Dorset; and the Bacon family certainly held some land in Dorset in the 12th century. That he was born about 1214 is a deduction from his statement in 1267 of the age at which he began to study. After taking his degree at Oxford he seems to have gone to Paris. We have lately learned that here he came under the notice of Philip de Greve, Chancellor of the University, who urged on him the composition of his first book, the '*Epistola de Accidentibus Senectutis*.' As Philip died in 1236, Bacon must have been in Paris at least some part of his time in 1234 or 1235. The book itself was completed and sent to Innocent IV at an unknown date between 1243 and 1254, probably about 1247. During its composition Bacon was doubtless lecturing as a Master of Arts in the University schools in the approved manner of the time. His teaching is indistinguishable in form from that of other masters of the day, though his lectures on Aristotle's physics, metaphysics and natural history have a certain amount of originality. Indeed Bacon was the author of the celebrated doctrine,

'Nature abhors a vacuum,' in its current medieval form, as Prof. Duhem has shown; but he was content to repeat Aristotle's explanations of every-day phenomena without any attempt to verify them by experiment. The manuscript in which his lectures are preserved comes to an abrupt close in the middle of the comments on the 'De Plantis'; and it is tempting to connect this fact with an anecdote, which made so deep an impression on Bacon that he tells of it three times over, of his bungling over a strange word in the text which he explained to his class was Arabic, but which one of his students afterwards told him was Spanish. A public disgrace of this sort may well have had to do with his abandonment of traditional methods about 1247, and with his resolution to become a master of the languages in which the fundamental documents of religion and science were originally written.

During the next twenty years of his life Bacon cut himself adrift from the regular course of medieval University life. He is often spoken of as having taken a degree in divinity, but it is hardly possible for any one to read the treatise on Moral Philosophy in the 'Opus Majus,' for example, and think of its author as a trained theologian; nor is it likely that, had he been one, the ten years' struggle between the Mendicant Orders and the University of Paris respecting divinity degrees would have left so slight a mark on his writings. All the questions in dispute at the University to which he ever refers are as much parts of the Arts' course as of theology. Most probably Bacon took little direct part in University life from this time onward. He had already travelled through France and Italy before the composition of his first work, in which he tells how he had explored nearly every library of the Latins, and describes how he had seen a mountain near Rome, perhaps Tivoli, the air and vegetation of which cured all diseases. But it is pretty evident that at this time he knew no Greek or Hebrew or Arabic; and the results of his researches only brought him in contact with Latin versions of Arabic medical writers—Iscac, Haly, and Avicenna; his knowledge of Greek medicine—Galen and Dioscorides—coming through Haly. It was in his studies for this work that Bacon first came upon a book which more than any other

influenced him during the next quarter of a century, the pseudo-Aristotelian 'Secretum Secretorum.'

The 'Secretum Secretorum' is, like many pseudonymous fabrications, a work of extraordinary interest. The genuine work of a great man may merely express what he wants to say without reference to an immediate public, and may have to wait centuries for appreciation. A pseudonymous work tells us what the public expects from its teachers and what it is interested in hearing. Since Aristotle, whom medieval writers could call 'the philosopher' without any other identification, had been the teacher of Alexander, the conqueror of the world, it would be obviously interesting to discover the esoteric doctrine which, it was understood, underlay the bulk of his writings. This the 'Secretum Secretorum' purported to give, as the last and greatest work of the writer embodying the results of his lifetime's study. As we know it, it is a Latin translation made shortly after A.D. 1200 from an Arabic work, founded on a Syriac collection made some centuries previously from Greek sources. To Bacon and his contemporaries the fact that this work came to them through the Arabic, and that no Greek original of it was obtainable, gave no ground for suspicion as to its authenticity. Its contents were in general useful; it inculcated kingly virtues and duties, it gave good advice as to diet and the care of health, and guided the reader in the choice of officials by character and physiognomy. But in addition to this it developed a course of Neo-Platonist philosophy, emphasising the relations between phenomena and ideas, explaining by them the influence of the planets, and laying down a course of sympathetic magic, in which the observer did not, if we may so express it, set in motion the forces he hoped to use, but put himself in the position to make use of them. In close connexion with this natural magic was a chapter on alchemy, in which we find for the first time the well-known 'Emerald Table' of Hermes with its twelve maxims. The Arabic text of the 'Secretum,' as now known, contains a certain amount of the magic which makes use of names and invocations and is unquestionably illicit, but we may doubt whether this part was ever translated into Latin.

The effect of this work on Bacon's development was

great. He wrote a commentary on it, and quotes it incessantly. It seems to have been the spur to his study of astrology and alchemy; it lay behind his assertion of the value of astrology to the rulers of the Church, and his requests, in season and out of season, for the foundation of an official school of magic by the Pope. Hypnotised by the authority of Aristotle, he had accepted all this without question.

Fortunately for his career, at about this time Bacon's insatiable thirst for knowledge had brought him into relations with two remarkable men, one an unnamed student who had devoted his whole life to the study of the text of the scriptures in the original languages, the other an investigator of the phenomena of nature, Peter of Maricourt, a man filled with an insatiable curiosity as to every art and science, mechanical or popular, and seeking the explanation of them in natural laws. It was at this period that Bacon began the series of experiments which during the next twenty years cost him 'more than two thousand livres [of Paris] on secret books and various experiments, and languages, and instruments, and mathematical tables.'

Every now and then we catch glimpses of the world about him in his writings. He had seen at Paris Alexander of Hales, the first great doctor of the Franciscans, who died in 1245. He had twice heard William of Auvergne dispute before the whole University on the 'Intellectus agens'; William died in 1248. It must have been after he took up the study of languages, that he heard John of Garland denounce the ignorance of the etymologists. In 1251 he saw the leader of the Pastoureaux at the head of his following, on their march from Flanders to the Mediterranean. It was about 1247 that he learned from Grosseteste his explanation of the tides; and somewhere about 1248 he must have composed his second work, 'De Secretis Operibus,' in which, prompted by a recent denunciation by William of Auvergne of dealings with magic, he vindicated the results of experimental science from this suspicion, and claimed the right of investigation into regions thought to be given up to unlawful dealings with evil.

Soon after 1251 Bacon seems to have returned to Oxford, and to have entered, for reasons of which we can

form no idea, the Franciscan Order. We know so little of the inner life of a convent of Friars Minor in a University town at this period that we are quite in the dark as to the opportunities for carrying on experimental researches possessed by a member of the Order, though any strict observance of its Rule would have made them impossible. It may be fairly concluded that it was in Oxford that Bacon learnt his mathematics and astronomy; since, when writing his notes to the 'Secretum Secretorum' in Oxford, he had not yet learnt the true length of the year, as he rejects a reading in the manuscripts before him, which is fairly accurate, in favour of another obviously wrong. To the study of astronomy we may add the study of the text of the Scriptures, if we may trust the tradition which tells us that the letter to the 'innominato magistro' of St Bonaventure, written between 1248 and 1255, was addressed to him. The letter was sent to an 'unnamed master' who had some thoughts of joining the Order, but had been dissuaded from it by a Dominican who attacked the Franciscans for their non-observance of the Rule. The Dominican had been reproved by the English provincial minister, and Bonaventure follows up the argument. Allowing then for the time taken up in these studies, we may not unreasonably put the date at which Bacon joined the Franciscans at between 1253 (the death of Bishop Grosseteste) and 1255.

Concerning his life in Oxford at this period we have no other information than the mere fact that he continued his studies there, and that towards 1257, when Adam de Marisco died, he was sent over to the convent at Paris by his superiors. His health had broken down in consequence of his devotion to study; and for two years he was obliged to lay aside all writing or reading of any kind. As a friar, he was now debarred from taking any part in the main current of University life—the Arts course—though he seems to have taken a benevolent interest in the inaugural disputations or inceptions of some of the new masters of arts. He tells us that he was mainly occupied in investigations and experiments in optics, in making lenses, constructing astronomical tables, and elaborating his theory of the propagation of force. His leisure was devoted to the

instruction of boys in mathematics, science and languages; and one of these lads, who came to him about 1261 at the age of fifteen, he supported and instructed gratis for the love of God, employing him later as a messenger to the Pope. We have in the '*Liber Exemplorum*,' published by Prof. Little, a glimpse of him at this period listening to tales of magic.

Bacon's stay at Paris seems to have lasted for about ten years; and during that time, there can be little doubt, he had elaborated the plan of his great encyclopedic work, his '*Scriptum Principale*,' and had written the first drafts of several parts of it. Considerable misconception as to this work still exists, due probably to a want of appreciation of the terms he uses when speaking of his writings to the Pope in 1267-1268. He had not, it is true, written any complete work; but he tells us that he had from time to time written on various scientific subjects, and sent chapters to friends, while it is evident that there was a general idea that he was writing something important. Nor is it strange that Bacon, though a friar, should have begun such a work. This was an age of encyclopedias. Alexander of Hales had written a '*Summa*,' an encyclopedia of theology which was 'a load for a horse'; Albertus Magnus had composed a series of comments on Aristotle which include the whole range of scholastic knowledge; Thomas Aquinas was at work on his '*Summa*' and '*Commentaries*'; Vincent of Beauvais had completed his enormous series of '*Specula*'; Bartholomew Anglicus had published his '*De Proprietatibus Rerum*.' What wonder, then, that Bacon should have conceived, and been allowed to set about, his great scheme? But in 1260 a General Constitution of the Order, forbidding the publication of unauthorised writings, which does not seem to have been directed at him, put anything he might write under the censorship of his superiors, a censorship which Bacon was little disposed to accept. It seems hardly likely that the criticisms of the teachers of the two Orders which flowed so readily from his pen in 1267 had never found expression before, or that his superiors could have been ignorant of his feelings towards them. At any rate he received no direct commands to keep on writing and seems to have laid aside his scheme. But

there can be no doubt that he had already begun the work—his 'Scriptum Principale'—in four volumes, which he afterwards attempted to rewrite, and that a considerable part of each volume was in existence.

The fame of the work on which Bacon was engaged and the spirit in which it was conceived had spread sufficiently, by about 1265, to come to the knowledge of a clerk, Raymond of Laon, who interested the curiosity of Guy de Foulkes, Cardinal of St Sabina. The cardinal, who early in 1265 became pope under the title of Clement IV, seems to have commissioned Raymond to obtain a copy for him. By the hands of Sir William Bonecor, probably in March 1266, when he was going to Rome as an envoy for Henry III, Bacon sent a reply to Clement, excusing himself for not sending any of his works, reminding His Holiness of the Constitution of the Order, his want of means, and the difficulty of obtaining fair copies, but putting himself at the orders of the Pope. In reply, a brief was issued from Viterbo, June 22, 1266, ordering Bacon to send to the Pope, secretly and without delay, a fair copy of the works which Raymond of Laon had previously mentioned, and, notwithstanding any Constitution of the Order to the contrary, to make known to him the remedies for those dangers he had indicated.

This was Bacon's great opportunity, and he at once took full advantage of it. Three large books, the 'Opus Majus,' the 'Opus Minus,' and the 'Opus Tertium,' were completed by the beginning of 1268. Of these the first and largest is complete; the second is only known to us by fragments preserved in a late copy, and by the description Bacon gives elsewhere of its contents; while the third has been pieced together within the last few years by the fortunate discoveries of Duhem and Little. It is scarcely possible to exaggerate the value and importance of these works as landmarks and documents in the intellectual history of the period. They are the chief contribution of Bacon to the literature of his century and of all time.

Early in 1268, in all probability, Bacon despatched his messenger to the Pope, carrying with him the 'Opus Majus,' an introductory letter, and perhaps some subsidiary treatises, which at all events were prepared for the purpose. But on November 29 of the same year

Clement died; and all the hopes founded on his good will were shattered. In the mean time Bacon had seemingly—if we follow the tradition preserved by Jebb—prepared an enlarged version of the ‘Opus Tertium,’ and had been working on the revised edition of his ‘Scriptum Principale,’ to which he now gave the title of ‘Compendium Studii Philosophiae.’ The fragment published by Brewer was most probably written about 1272 to form part of the first volume, which was to deal with grammar and logic. A revision of the ‘Communia Mathematicae’ was made for the second volume; and several parts of the third, treating of physics and astronomy, were rewritten. Of the fourth volume, on Metaphysics and Morals, we can find nothing written at this time. His Greek and Hebrew grammars also belong to this period, and perhaps his introduction to the ‘Secretum Secretorum.’

In 1277 the quarrels which had disturbed the University of Paris for years came to a head; and the Pope ordered the Bishop of Paris to enquire into the errors which were current there. By March 7 the Bishop, Stephen Tempier, issued a famous decree, condemning the students of arts for the freedom they allowed themselves in supporting various execrable errors, proscribing a book of magic and the ‘De Amore’ of Andrew the Chaplain, and giving a list of 219 condemned errors. In its propositions of Thomas Aquinas stand side by side with others from Siger of Brabant; some of them, as Prof. Little points out, are probably directed against Bacon’s philosophical position, while several condemn the belief in astrology. A criticism of the decree was soon issued under the title of ‘Speculum Astronomiae seu de Libris Licitis et Illicitis,’ which has been generally attributed to Albertus Magnus. Every word of it could be supported by Bacon; and it has indeed been thought by a very acute and learned critic, Père Mandonnet, to have been written by him. To the mind of the writer it is quite impossible for anyone who has caught the peculiar rhythm of Bacon’s prose style to accept this identification, which seems to have been first suggested by Naudé from a misreading of Pico della Mirandola’s remarks on the book; but the existence of the tract undoubtedly hurried on the catastrophe of Bacon’s career. Towards the end of the year the heads of the

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Dominicans and the Franciscans met to allay the quarrels between the Orders; and it was then decided that any friar who was found to have offended another should receive a sufficient punishment from his Provincial. Shortly afterwards

'This Minister General, brother Jerome, by the advice of many friars, condemned and reprobated the teaching of Friar Roger Bacon of England, Master of Sacred Theology—as containing some suspected novelties, on account of which the same Roger was condemned to prison—commanding all the friars that none of them should maintain this teaching but should avoid it as reprobated by the Order. On this matter he wrote also to Pope Nicholas, in order that by his authority that dangerous teaching might be completely suppressed.'

This statement is taken from 'the Chronicle of the Twenty-four General Ministers,' written long after the event, and of contestable accuracy. But we can hardly doubt that Bacon was condemned, as Prof. Little says, in consequence of 'his contempt for authority, his attacks on the Dominicans and on his own Order, and his defence and practice of the "magical" sciences—in magic being included the unknown powers of art and nature.' As to the length of his imprisonment, its severity, or its effect upon him, we know nothing. Tradition has always affirmed that he remained in prison till the death of Jerome of Ascoli, the Minister-General who condemned him, and who afterwards became Pope under the title of Nicholas IV. Bacon's last dated work, recently published by Dr Rashdall, bears the date of 1292; and the most trustworthy traditions assert that Bacon himself died at Oxford and was buried on June 11 of that year, a little more than two months after Nicholas. 'The noble doctor Roger Bacon was buried at the Grey Friars in Oxford, A.D. 1292, on the feast of St Barnabas the Apostle,' says John Rous a century later in his 'Historia Regum Angliae.'

Leland's comparison of the manuscripts of Bacon to the leaves of the Sibyl is inextricably mingled in our minds with the picture of the deserted college quadrangles he describes after the visit of the commissioners—the sharp gusts of wind scattering the torn

manuscripts over the courtyard or eddying them in disorderly heaps. Irreparable damage to our knowledge of the past has been done by the dispersal of the ancient libraries; but by the piety of a few collectors, and the patient labour of the last few generations of scholars, we are able to piece together much of Bacon's work and teaching. It is a little curious that among all the manuscripts of his works we possess there are only two or three that can possibly have been written in his lifetime; and that these, with one possible exception, must have been executed during the last years of his life.

The earliest of Bacon's extant writings in date of composition are his scholastic lectures on Aristotle's *Physics* and *Metaphysics*, and on the spurious '*De Plantis*,' which are preserved for us in a single manuscript which once belonged to the great abbey of Corbie. They were described by Victor Cousin in 1848; and Prof. Duhem, in the volume of *Commemoration Essays* placed at the head of this paper, gives sufficient extracts from the lectures on *Physics* for the ordinary reader to understand their method and to estimate their value. They do not show, as has already been remarked, any marked divergence from the methods of his contemporaries, but they do prove that at this period of his life 'he experimented only in imagination.' A few other treatises of doubtful authenticity are attributed to this time.

Bacon's medical writings form the next stage of his mental activity. The earliest of them, the '*De Retardandis Senectutis Accidentibus*,' was begun, as we have seen, about 1235, and must have been finished within the next ten years or so and sent to Innocent IV. In accordance with the inveterate custom of Bacon it was enlarged, and, fitted with an altered introduction, was dedicated to one of his successors, perhaps Nicholas III or Honorius IV. A number of smaller tracts on similar subjects also exist, a complete edition of which is in preparation. Mr Withington, in the *Essays*, gives a sufficiently clear account of them from the professional point of view when he says that 'they are the production of a man of singularly practical mind who was not in practice.' Bacon's medical works form a very complete summary of popular Arab doctrine as to the care of health, especially in advancing years. His rules of diet

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is mainly taken from the 'Secretum Secretorum,' as is also his praise of rhubarb as a medicine. There is described in that book a wonderful compound of drugs and gems; and Bacon tells us, as of his own experience, of the greatest man in France next to the king (perhaps Charles of Anjou) who used to be of the worst conditions physically and morally, and by its aid became bold, courageous, and princely. Antidotes to poisons are also discussed; and Bacon cites the case of a man of imperial blood who, surrounded by mortal enemies, preserved himself from death by the constant use of one of them.

The work of Bacon during the first few years of his devotion to experimental science has left traces in his next written treatise, 'De Secretis Operibus Naturae et de Nullitate Magiae.' Though this treatise has been often printed, and, as we have seen, was probably the cause of his reputation for magic, no scientific investigation of its text has yet been made. In the first three chapters of the book Bacon points out the impossibilities of the ordinary theories of magic, while duly allowing the importance of words and formulae, and laying great emphasis on the danger of heresy that might be incurred when incautiously studying the subject. At the same time we see that he had already begun to study the laws which govern the emanation of force, which form so important a part of his later philosophical writing. In his fourth chapter he describes certain wonderful inventions, which may be made without the aid of magic—mechanically propelled ships and cars, flying machines, weight-lifting machines, contrivances for walking under water, etc., etc., 'all of which (he says) have been made in our time except the flying machine, which I have not seen, nor know anyone who has, though I know a sage who has thought out a plan for it. And plenty other such things may be made, like bridges over rivers without piers.' It is noteworthy that these assertions are repeated in the 'Opus Tertium' and in the 'Communia Mathematicae.' His fifth and sixth chapters describe optical marvels, multiplying glasses, lenses arranged for seeing distant objects, magnifying and diminishing glasses, burning glasses, a self-moving planisphere worked either by the sun's rays or by a magnet, gunpowder and artificial gold. The

ninth chapter contains a method of alchemy from which Col. Hime has ingeniously extracted a formula for the making of gunpowder. Here probably the original treatise ended, but two chapters on the same subject have been added, the second of which contains the famous anagram 'luru vopo vir can utriet,' of which various forms exist, and many solutions have been proposed. Col. Hime's solution is: 'R. VII. part V. nov. corul V. et,' i.e. take 7 parts (of saltpetre), 5 of young hazelwood (charcoal), and 5 (of sulphur).

Bacon's alchemical treatises are untouched ground, on which Mr Pattison-Muir's essay throws a general light without elucidating any particular conclusion as to their value. Bacon was too much in the hands of Avicenna and his school to strike out a new line of research; and, until a good text of what he actually wrote is available, it is of very little use going into the matter. Let us add that the small treatise on alchemy and alchemical terms, published by Prof. Duhem in his fragment of the '*Opus Tertium*,' is the most valuable document in the history of alchemy discovered in recent years. We are not in a position at present to assign a date to any of these tracts except that most, if not all, of them were written before the '*Opus Majus*.'

As we have seen, Bacon's deeper mathematical studies began about 1257. The aim and utility of medieval mathematics differ so greatly from those of the science of to-day that we are hardly able to estimate his powers. His knowledge of the literature of the subject was great, as the slightest glance at the essays of M. Charles or Prof. Smith on the subject will show, but his essentially practical turn of mind made him interested in results rather than in the way they were obtained, provided this were valid; and, as a teacher of mathematics, he would allow no time to be wasted on learning demonstrations by heart, while he insisted strongly on a complete mastery of definitions and axioms.

Though little of his projected treatise is in existence, we can follow the general bent of his mind and even trace the growth of his knowledge and attainments. The '*Computus*,' a tract on the calendar, is the first important result of his mathematical study. It is devoted to the calculations necessary for the right celebration

of the festivals of the Christian year, and therefore deals with the correspondence of the lunar and solar year with the Arab calendar, the date of the Nativity and of the Crucifixion. A calendar follows, giving the epacts, etc., from 1254 for the next four lunar cycles. Prof. Smith, in his essay, seems to think it a fault that to Bacon mathematics was merely astronomy; but in those days there was no other practical application of the science.

The work known as the 'Metaphysica' or 'De Viciis Contractis in Studio Theologiae,' which was first printed in an incomplete form in 1905, and has now been discovered in the Vatican complete,* was probably written about this period. It bears some resemblance to the Metaphysics of Avicenna, by which it is deeply influenced, and was probably intended to fit into the fourth volume of Bacon's 'Scriptum Principale'—Metaphysics and Morals. Another work undoubtedly written before 1267 is the 'De Multiplicatione Specierum.' The subject of the transmission of force was a matter of the deepest interest to Bacon. It is not far-fetched to see in it a result of his interest in magic. If magic and astrology are to be brought within the domain of natural science, the methods of their action must be studied; and this action can only be by rays, like those of light. Accordingly Bacon set himself to elaborate the laws of the transmission of light, its reflection, refraction, and passage through a medium. The place of this tract in the great scheme was also in the fourth volume.

The work by which Bacon's reputation must stand or fall was written between 1266 and 1268. It consists of an encyclopedic treatise to which the world has given the title of the 'Opus Majus,' and two or three lesser ones, the 'Opus Minus,' the 'Opus Tertium,' an introductory letter published by Cardinal Gasquet in the 'English Historical Review' of July 1897, and perhaps some smaller treatises. The theory generally held is that all these treatises were completed and sent to the Pope early in 1268, but the question asked by a reviewer in 1897, 'Is there any proof that the "Opus Tertium" was

* In a manuscript attributed to Albertus Magnus. It is curious that Pico della Mirandola had a similar MS. before him.

ever completed and sent to the Pope?' has been recently answered by Père Mandonnet in the '*Revue Néo-Scholastique*' in an unexpected way.

When Bacon received the Papal commands, his first impulse was to complete the great work, of which some parts were already in existence; and for some months he appears to have worked in this direction. He soon realised that the work he had in contemplation could only be written with the help of a large staff of assistants, and he thereupon set himself to compose a preliminary treatise showing the directions in which he desired to pursue his investigations, and the state of knowledge at the time. It was designed to impress on the Pope the practical usefulness of scientific knowledge and method; and each of the parts into which it is divided closes normally with a set of practical applications which would be likely to appeal to the man of affairs that Clement IV had been. The best account of the '*Opus Majus*' that has yet appeared is that given in 1876 by Prof. Adamson and reprinted in the volume of Commemoration Essays. It consists 'mainly in three things: 1st, a criticism of the spirit in which scientific studies were then pursued; 2nd, an attempt at a classification of the sciences; 3rd, an exposition of a new scientific method.' To that analysis we would refer the reader; let us only add that the chief merit of the '*Opus Majus*' for us is its insistence on the need for experimental verification of the result of argument; an enormous advance, not only on the practice of the time, but on Bacon's own earlier practice itself. He is perhaps the first to make Natural Philosophy a branch of mathematics, a science depending for the validity of its conclusions not on authority but on reason controlled by experiment.

The '*Opus Minus*' and the '*Opus Tertium*' are, in plan, summaries of the '*Opus Majus*,' preceded by introductions and enlarged by chapters on subjects outside the scheme of the larger work—alchemy, astrology, magic, astronomy, and scholastic philosophy. As we have them now, the relation between these three works and Dom Gasquet's text is complicated by much repetition. Père Mandonnet explains this repetition and also certain divergences between the account of the '*Opus*

Majus' given in the 'Opus Tertium' and that of Dom Gasquet's text by the assumption that both the 'Opus Minus' and the 'Opus Tertium' were discarded before the 'Opus Majus' was finished; and that Dom Gasquet's text was the introductory letter actually sent, as it is the only one whose account of the 'Opus Majus' corresponds with the existing text. With this latter view the present writer is in entire agreement. It is almost inconceivable that Bacon should have sent, along with a large book intended to be read, at least three or four preliminary treatises making a work of equal length—treatises which would in all probability either divert the interest of the Pope from his principal subject, or cause him to lay the whole aside. If the complete 'Opus Tertium,' as we know it to-day, had reached Rome in 1268, we feel assured that the condemnation of its writer would not have been delayed for ten years.*

The composition of the 'Opus Majus' and its subsidiary works within the space of fifteen or eighteen months by a solitary friar in his cell is a feat the wonder of which is not lessened by the fact that a certain amount of its subject matter was already in existence, in the shape of separate treatises, such, for example, as the 'Perspectiva,' parts of the 4th section, and the 'De Multiplicatione Specierum.' A critical text of the 'Opus Majus' has yet to be made. Père Mandonnet founds a theory of its composition on the absence of some passages in Vol. I of Dr Bridges' text which are to be found in the corresponding place in Vol. III. It has to be said that Dr Bridges' text does not represent any definite class of MSS, but is simply Jebb's text with arbitrarily-chosen emendations and additions. In the editor's own corrected copy of the

* In his introduction to the fragment of the 'Opus Tertium' discovered by him in a late manuscript at Paris, Prof. Duhem endeavoured to reconstruct that work and to fill the gap between Brewer's fragment and his own by absorbing into it a number of treatises usually thought to have an independent existence. If by the 'Opus Tertium' he means a work actually sent to Clement IV, there can hardly be a doubt that his scheme is too ambitious; but, on the other hand, there can be no question that long philosophical passages were written for the 'Opus Tertium' which we now find in the 'Communium Naturalium' and 'De Celestibus.' As we have no early and no complete manuscript of the 'Opus Tertium,' the only restraint on its hypothetical reconstruction will be the purely physical one of the author's time and opportunity.

work, which lies before us, any claim for manuscript authority is restricted to the last part. Faulty as it is, Dr Bridges' publication has rendered great service to the study of Bacon.

When the '*Opus Majus*' was despatched to Rome, Bacon seems to have set himself anew to the composition of his principal work. We have no means of knowing how far he progressed in his scheme; in no case did he come anywhere near the completion of any part of it. At one time he seems to have contemplated a work in seven volumes, but abandoned the scheme for that of the '*Compendium Studii*,' which was to contain four volumes dealing with the principal branches of knowledge. In each volume the first book was to deal with general principles, '*Communia*,' the others dealing with special branches of the subject. The first volume was devoted to Linguistics—grammar and logic; and the fragment published as '*Compendium Studii Philosophiae*' and the grammars published by Nolan and Hirsch apparently formed part of it. It is to be regretted that so little of this volume has survived, since Bacon exercised an influence in this direction over his contemporaries and the generation which succeeded his death, which may be estimated from Cardinal Gasquet's *Essay on 'Roger Bacon and the Latin Vulgate*,' and that of Dr Hirsch on '*Roger Bacon and Philology*.'

Of the second volume of his great work, that dealing with Mathematics, only part of the volume of general principles, and a few chapters on geometrical definitions remain. The third volume, dealing with Natural Sciences, the least incomplete of all, hardly gets one-third on its way. The first book of '*Communia*' is, however, of the highest importance for the light it throws on Bacon's position in scholastic philosophy. His doctrine of matter and form resembles that afterwards held by Scot; and his explanation of the '*Intellectus Agens*,' in opposition to that of St Bonaventure and St Thomas, is followed by Scot and Ockham. After dealing with the modes of transmission of force in a compendious way, it proceeds to the study of the subject of matter, privation, and form, of universals and individuation, of cause and effect, of motion and time, of the existence of a vacuum, of generation and of the soul. These are the subjects of

scholastic philosophy, and many of them are still in dispute, but Bacon does not treat them in the scholastic manner. He writes in a continuous style, and every now and then manages to import a breath of air from the outer world. He is specially breezy in his treatment of the cause of individuation, where he sums up by saying that most of the talk about it is 'great folly.' The second book of the volume of '*Naturalia*,' which bears traces of later editing, treats of the world in its relation to the visible universe, and of the motions of the planets around it. Its composition may be assigned with some probability to the years immediately following the despatch of the '*Opus Majus*'; it includes long passages from earlier works and from the '*Opus Tertium*.'

Of the fourth volume, the '*Communia Metaphisicae*,' only detached fragments can be identified. One fragment with additions intended to bring it into Bacon's latest scheme, has been published by Dr Rashdall as the '*Compendium Studii Theologiae*.' A comparison between the reference to the Metaphysics on p. 51 of the '*Communia Naturalium*,' and the discussion in this work of the modes of equivocation, will establish the point. The beginning of one form of the '*Communia Metaphisicae*' is found in a manuscript of the British Museum which is now in the press. In any case, it must be remembered that Bacon's idea of Metaphysics is derived not from Aristotle but from Avicenna, whose Metaphysics begins with a study of the general ideas of physics, and passes from a consideration of unity and number to that of the first principles, to the study of pure truth, of the celestial powers, and of moral philosophy—a train of thought which was followed by Bacon in its main lines.

From Bacon's condemnation in 1278 till 1292 we have no definite trace of any fresh work. It seems not unlikely that for a part of this time his more important labours fell under the same ban as his somewhat unguarded commendations of 'white' magic and astrology. But, as the years went by, a revision of judgment made itself felt; and he was even encouraged to take up the task of an encyclopaedic work once more—on a smaller scale, it is true. A number of his writings were copied out at the close of the century, some of them old, some recast; and attempts, at any rate, were made to fit them

into the framework of a 'Compendium Studii Theologiae,' in seven volumes, as is shown by contemporary notes still extant. Death interrupted the scheme.

Bacon holds so independent a position among the thinkers of his century, that it is not easy to draw up any list of the masters he followed. We do not even know that he attended the lectures of the masters he names, such as St Edmund Rich, who first lectured on the Elenchs at Oxford. He had heard William of Auvergne dispute on the 'Intellectus Agens' before the University of Paris, and adopted his views, which were those of Grosseteste and Adam de Marisco and were probably current at Oxford. Grosseteste seems to have exerted the principal influence on Bacon at the turning point of his career, and that in two directions—the study of Greek and Hebrew, and of physics, with probably the hint on the connexion of the study of light with the propagation of force when he was seeking a scientific explanation of the effects of magic. His personal acquaintance with mathematicians like Campanus of Novara or John of London may have influenced or directed his mathematical reading, which was very wide; but the only man who seems to have had a lasting influence over him was the otherwise almost unknown experimenter, Peter of Maricourt. Bacon waxes almost lyrical in his praise: 'Nothing which should be known is hid from him; all things above and below, down to old wives' charms, have been examined by him; he has renounced all honours and riches, though they were at his hand, to continue his researches.' The sole result of these labours, outside the work of Bacon himself, is a tract 'De Magnete' written in 1269.

The chief masters of Bacon were not men but books. He stands between the Arabic philosophy and Europe. Aristotle and Averroes—the 'Philosophus' and the 'Commentator'—are quoted on every page of his works; and when he abandons them it is to follow in the wake of Avicenna. He made himself acquainted, it is true, with the teachings of his contemporaries, but as a critic and often an opponent. One passage will refer to St Bonaventure, another to Albertus Magnus, another to Thomas Aquinas, though they are unnamed, of course,

according to the rule imposed upon him; and his strictures were severe enough to draw an angry remark from Albertus as to critics who were too idle to publish works of their own, and only read those of others to find fault with them. A mere list of the works read and quoted by Bacon, apparently at first hand, fills several pages of M. Charles's monumental essay. His reading was not humanistic in intention but utilitarian; he quotes from the poets, sometimes at secondhand from Sacrobosco, sometimes probably from a book of extracts; but he had read Cicero, Sallust, Pliny, Seneca, and the historians and geographers, classic and post-classic. It was an age of wide and eager reading; and, so far as we can see, Bacon was the deepest and widest-read man of his time.

When we endeavour to find out to what extent Bacon influenced his contemporaries and successors, we find very little direct evidence. Almost the only mention of him by a contemporary is that made by Pierre Dubois in his '*De Recuperatione Terre Sancte*,' written about 1306, in which is recommended the study of Bacon '*De Utilitatibus Mathematicarum*.' But there is indirect evidence in abundance. The number and age of the manuscripts of his works testify to a constant care for his memory. If we except the tracts or parts of tracts dealing with magic and alchemy, we find a regular succession of copies made, showing a continued interest in him during the two centuries between his death and the Renaissance. The most important group of them, those collected by brother William Herebert for the Franciscan convent at Hereford, may even have been written for him in Paris during Bacon's life; and they certainly were designed to realise the last of Bacon's schemes, the '*Compendium Studii Theologiae*.' The partly burnt Cottonian manuscript of the first four parts of the '*Opus Majus*' was, not impossibly, written before his imprisonment. The Vatican copy of the same work was made within a few years of his death. The only copy we have of his scholastic lectures was made probably before his death. To the same period belong the earliest copy of his edition of the '*Secretum Secretorum*,' and several manuscripts of his mathematical writings. The few 14th-century manuscripts are mainly of mathematical or philosophical

works; but in the early years of the 15th century the interest in Bacon revived, and many copies were made of those of his works that could be found.

Somewhere about 1410 a copy of the '*Opus Majus*' seems to have fallen into the hands of Cardinal Pierre d'Ailly, bishop of Cambrai. In August of that year the Cardinal wrote a description of the world, the '*Imago Mundi*,' into which he conveyed, without acknowledgment, a passage from Bacon tending to prove that the sea voyage between Africa and the Indies could not be very long; and it is remarkable that this passage was quoted by Columbus in his letter of October 1498 to Ferdinand and Isabella from Haiti.*

Later in the same year d'Ailly composed a tract, '*De Legibus et Sectis*,' directed against abuses which might arise from Bacon's doctrine of astrology in the 4th part of the '*Opus Majus*,' speaking of him as '*quidam doctor anglicus*.' In 1411 the Cardinal wrote to the Pope on the correction of the calendar, substantially reproducing the reasons put forward by Bacon and quoting his dates for the solstice in 1267, but still without mention of his name. At last, in 1414, he mentions him by name, as '*Bacon, magnus doctor anglicus, in Epistola ad Clementem papa,*' to blame him gently because '*nimis excessive mathematici potestatem extollit*.' The reformation of the Calendar carried out by Gregory XIII can be looked on as the result of a long agitation inaugurated by Roger Bacon, carried on by Pierre d'Ailly and Nicolas of Cusa (1436) in the 15th century, and by a host of mathematicians following them till the final reform was made in 1582.

In another reform projected by Bacon, that of the text of the Vulgate, he approved himself again one of the greatest masters of biblical criticism. We need not here attempt to repeat the tribute paid him by Cardinal Gasquet, on whose shoulders is laid the task which Bacon advocated. The methods he suggested are the scientific methods employed to-day in the production of a critical text; and the principles he laid down

* Columbus was much influenced by d'Ailly's work as a whole, which, says Humboldt, 'exercised a greater influence on the discovery of America than did his correspondence with Toscanelli.'

were those which must always govern those concerned in Biblical revision. A fourth movement inaugurated by Bacon was the teaching of the four great languages—Greek, Hebrew, Arabic, and Chaldean, in the Universities of Europe, which was ordered by Clement V shortly after his death for reasons which seem borrowed from his works.

It does not lie within the scope of this article to estimate the position of Roger Bacon among the great men of his century or his country; the time has not yet come, when, with all the materials before us, we can revise the judgments by which the last two centuries have consecrated his fame. Excellent as are the Commemoration Essays just published, the work of M. Charles published more than half a century ago is still the most valuable account of his life and writings, though it much needs revision. More than one-half of Bacon's writings still await publication; and, until they are in the hands of scholars, the history of 13th-century science and philosophy cannot be written. We in England have a special interest in this work. Roger Bacon was our first great English philosopher; he was typically English in his independent attitude and practical turn of mind; he influenced the teaching of Oxford, and, through Oxford and Scot and Ockham, the later philosophy and politics of medieval Europe; he established the tradition of free enquiry which has made English workers open out so many new paths in the world of thought and science. We have raised him a monument in the University where he once taught; it remains but to put that teaching on record for whoso will to read.

ROBERT STEELE.

Art. 13.—THE HOME RULE CRISIS.

A UNIONIST Member of Parliament was reprimanded by the Speaker not long ago for saying that the country was drifting into Civil War because an old gentleman could not make up his mind. The remark may have been unparliamentary, but it was none the less illuminating. If we stand to-day on the brink of an appalling catastrophe it is due in no small measure to the fact that in a critical period the supreme power in the State has fallen into the hands of a man who combines unrivalled gifts of parliamentary leadership with a complete incapacity to face facts or to come to any decision upon them. Again and again in the last few months Mr Asquith has averted a breakdown in Parliament by the exercise of his amazing skill in debate. Of no one could it be more truly said than of him that he plays upon the House as upon an old fiddle. But not once since the beginning of this great constitutional crisis has he shown the slightest trace of any understanding of the forces at work outside, or made any visible effort to direct or control them. Devoid alike of imagination and of resolution, he has drifted on from debate to debate, from incident to incident, the slave of a Parliamentary situation which he has himself created, and of events in Ireland which have long since reduced that Parliamentary situation to a dangerous farce.

There is a Mr Asquith of current legend—austere, unflinching, logical and lucid. Whatever substratum of fact may once have existed for these epithets, they have little application to the real Mr Asquith of the present day. His famed lucidity, it is true, still survives, in a sense, and still receives from his opponents in debate the customary homage of a banal compliment. But it is a lucidity of phrase alone, and not of thought, a lucidity which explains but never enlightens. It would pass the wit of man to discover, in the whole series of Mr Asquith's speeches on this Home Rule issue, what is the real object of his measure, or what is his own idea of the future destiny of Ireland and of the United Kingdom. There are lucid phrases to please the Nationalists, lucid qualifications to assuage the doubts of faltering Liberals, lucid retorts to Unionist attacks.

But there is neither coherent vision nor illuminating glimpse, to tell us what it is all about, or why he is doing it. This vagueness and incoherence are not the artifice of one who deliberately conceals his purpose. They are, on the contrary, merely the outward expression of the lack of definite policy or purpose behind. It would be futile to attempt to strip off the outer integument of debating points in order to get at the real Mr Asquith underneath. There is no such person. The trouble with Mr Asquith is just that he never has been anything, either Nationalist, Federalist or Unionist, on this Home Rule question, and that he has never really wanted, and does not now want, to do anything with it. For twenty years he has held a season-ticket on the line of least resistance and has gone wherever the train of events has carried him, lucidly justifying his position at whatever point he has happened to find himself. Since 1910 he has been pinned down by Parliamentary exigencies to a particular measure. But he has never faced the consequences of his measure in action, and will not face them now. He cannot bring himself to abandon the policy of forcing Home Rule upon Ulster; but neither can he bring himself to interfere with Ulster's preparations for resistance. And if Civil War should break out, as it well may, next month or the month after, he will still be found letting things take their course and justifying himself with dignity, conciseness and lucidity till some impatient man of action among his colleagues decides to lock him up.

There are several of Mr Asquith's colleagues who would long ago have made some real effort to settle the issue if they had been in his position. Mr Churchill, indeed, has more than once actually tried to bring about a real decision. The federal scheme first outlined at Dundee on September 12, 1912, and the "pogrom" of last March were each in their very different ways efforts to find a solution in the world of actualities and not of phrases. But Mr Churchill has little personal authority in his party, and no other colleague has attempted to interfere with the Prime Minister's control, or non-control, of the Home Rule situation. The only other person who could have exercised a really decisive influence in the shaping of policy to meet facts is Mr Redmond.

But Mr Redmond is as incapable of a positive or constructive policy as Mr Asquith himself. He is little more than a respectable and eloquent lay figure enshrining the tradition of Parnellite Home Rule. To that he has clung tenaciously, imperiously, and regardless of all the obvious consequences which make that solution impossible, simply because his imagination has never been able to soar to any other.

But if the fatal conjunction of Mr Asquith's planlessness and Mr. Redmond's narrow persistence in the groove of an obsolete and impossible policy are primarily responsible for the intolerable situation into which Parliament and the country have drifted, it cannot be said that Unionist leadership has done much to avert the impending catastrophe. If great issues could be settled by argument alone, then certainly the Unionist leaders have done all that ability and eloquence could do to bring home to Parliament and to the public the impolicy and the danger of the Government's proceedings. But great issues are ruled by will and by ideas; and in that domain Unionist leadership has lacked the compelling force which alone could transform the situation. The Unionist leaders have made little or no attempt to quicken and kindle the national idea which, once fully conscious, of itself excludes and repels the idea of separation. They have denounced the Government's policy as unconstitutional and revolutionary, but they have never made it sufficiently clear that they really mean what they say, that they really mean to dispute the validity of the Home Rule Bill if it gets on the Statute Book under the Parliament Act, and mean to repeal it if they are returned to power. On the other hand, while they have been nervously anxious not to be thought unciliatory, they have never clearly indicated on what lines and by what method they themselves would be prepared to arrive at a real settlement by consent. They have allowed Ulster, which has known its own mind from the first, to become the protagonist in the drama, while they themselves have tended to relapse into the position of a Greek chorus, dwelling alternately upon the wickedness and the impossibility of coercing Sir Edward Carson and his Covenanters.

Sir Edward Carson, indeed, has bulked steadily larger

on the political horizon as the crisis has developed. And the secret of his power has lain precisely in the fact that he has represented not abstract argument but concrete will, the will of a great community embodied and intensified in the single will of its leader. The impression of strength and even greatness which he has created has been deepened by the simplicity of his character and by his essential moderation, a moderation which has shown itself alike in his restraining and steadying influence upon Ulster itself and in his repeated limitation of the Ulster case to the claim to retain only the same rights in the Parliament of the United Kingdom as are enjoyed by any other part of the kingdom. But the very strength of Sir Edward Carson's position and personality has been in one sense a weakness to the Unionist cause, for it has focussed public attention too narrowly on Ulster. The wider and more important issue of the Union has been too frequently allowed to recede into the background; and Unionists have fallen unconsciously more and more into the mental habit of advocating not the principles of Unionism against a divided kingdom, but the principles of Home Rule in favour of a divided Ireland.

With thus much by way of prelude we can now proceed to review the development of the crisis from the point at which we left it in the April number. When the House of Commons reassembled after Easter, the Opposition devoted itself with redoubled zest to the task of extracting from Mr Asquith, now restored to the House in his dual capacity of Prime Minister and Secretary of State for War, and from his colleagues, the true facts with regard to the projected *coup* against Ulster. In spite of the ingenuity shown in the arts of evasion and prevarication, this process of mental dentistry met with considerable success. On April 22 a new White Paper was published superseding the original White Paper of March 25. The original White Paper contained eight documents—according to Mr Asquith and Colonel Seely these were all the material documents in existence. The new White Paper contained fifty-five. Even here there were some obvious omissions on the most vital points. There was no record either from the War Office or from General Paget of the instructions given to the latter during

his visit to London, though two bald notes of the discussions at the War Office were subsequently extracted from the Prime Minister in spite of his flat refusal to answer any more questions. There was no record of General Paget's second interview with his Generals on March 20, when he unfolded his plan of campaign against Ulster, nor of his address to the officers at the Curragh on the 21st.

But there was quite enough to show that the whole story, as originally told by Ministers and bolstered up by the first White Paper, bore but little resemblance to the facts. No one could any longer dispute that naval and military operations, on a larger scale than any carried out by this country since the Crimean War, had been concerted against Ulster by Mr Churchill and Colonel Seely with the general knowledge of the Prime Minister. The whole series of moves had evidently been based on the assumption of an outbreak of open hostilities on March 21. So certain had been this assumption, and so great the sense of urgency, that—to give a single instance—when General Macready, who had been designed to play the part of Military Governor of Ulster, was unwell and unable to reach Belfast till the 23rd, it was considered necessary to appoint another Military Governor for the intervening two days. This certitude as to the precise moment of the outbreak of hostilities lent only too strong a colour to the view of the Ulster Unionist Council, who, in the interesting memorandum published by them as the result of their investigations, stated that the Government had intended to precipitate events by seizing the Headquarters of the Ulster Volunteers that morning. The facts already revealed and those still held back were, in the opinion of the Opposition, quite sufficient to warrant a judicial enquiry; and, on Mr Asquith's refusing to consider the matter, a definite Opposition motion was set down by Mr Austen Chamberlain in the following terms:

‘That, in view of the serious nature of the naval and military movements recently contemplated by the Government against Ulster, of the incompleteness and inaccuracy in material points of the statements made by Ministers, and of the continued failure of the Government to deal frankly with the situation, this House is of opinion that there should be a full and impartial enquiry into all the circumstances.’

This motion was fixed for Tuesday, April 28. Two days before, an amazed and amused world read in its Sunday papers the story of Ulster's counterstroke to the 'pogrom.' In March the Ulster Volunteer Force, though already a highly organised and very fairly disciplined body, was still largely unarmed. It is doubtful, if hostilities had then been forced, whether more than 25,000 military rifles could have been distributed among the 100,000 Volunteers who would have been mobilised. The existence of the Government proclamation against the importation of arms into Ireland had prevented their being brought in except in dribbles. The validity of that proclamation was being challenged in the Belfast Courts; and the challenge was sustained on March 25, though subsequently reversed by the Court of Appeal in Dublin. Meanwhile a consignment of some 30,000 Mannlicher rifles and 3,000,000 rounds of ammunition was purchased on the Continent and shipped on board a steamer called the 'Fanny.' Successfully eluding all attempts to keep watch over her, the 'Fanny' presently transhipped her cargo at sea to another vessel, re-christened for the occasion with the historic name of 'Mountjoy,' the ship that broke the boom and relieved Londonderry in 1689. When the critical time came the 'Mountjoy' was waiting off the west coast of Scotland.

On Friday, April 24, the press and the police authorities were duly notified that the Ulster Volunteers were going to carry out a test mobilisation on a considerable scale that night. As a matter of fact, something like 50,000 men were mobilised at three or four hours' notice; and their night marches, countermarches and manoeuvres kept the police interested and mystified from one end of the province to the other. Under cover of the general mobilisation the real business took place. At 8.30 p.m. a strong force of Volunteers occupied the little town of Larne on the western side of the entrance to Belfast Lough and proceeded to arrange for its isolation. All exits were barred; the police were confined to barracks, without conflict, by the sheer demonstration of numbers; the whole official telegraph and telephone system was put out of action, and the admirably complete signalling and despatch-riding service of the Ulster Volunteers took its place. Soon after nine o'clock the 'Mountjoy'

lay alongside Larne wharf and immediately proceeded to discharge her rifles and ammunition, as fast as willing hands could bring them out, into an endless string of motor-cars and lorries, which at once dashed off to their destinations in different parts of the province. On the other side of the 'Mountjoy' the cargo was being no less busily transferred to a smaller steamer which was sent round to Donaghadee, while the 'Mountjoy' herself proceeded across Belfast Lough to Bangor. At both places equally drastic and effective measures had been taken, and by six in the morning the greatest gun-running exploit in history was successfully accomplished. It only remains to add that another vessel, the 'Balmerino,' came into Belfast that same night, that the attention of the police authorities was duly directed by the movements of the Volunteers to her suspicious character, and that she was received by a strong police contingent and searched, with the result that nothing except coal was found on board of her.

The gun-running exploit was a striking demonstration of the organising capacity behind the Ulster movement. But it was even more striking as evidence of the power and cohesion of the Ulster community and of the impotence of the authorities. No amount of organising skill could have carried out such a stroke unless the sympathy and determination of the whole community had been behind it. Nor would the police and coast-guards, relatively weak as they were, have let themselves be overpowered, without even attempting resistance, by men armed with nothing more serious than staves, if their sympathies had been whole-heartedly on the side of the Government. After all, what could be more natural than that the police and military should sympathise with those who have always been their main support in the past and who are fighting on behalf of institutions which these forces have, hitherto, existed to maintain?

The challenge to the Government was direct and unmistakable. For a night all Government services had been suspended and the Government's servants forcibly coerced, while measures of the most effective character were being carried out to provide Ulster with the means of wrecking the Government's policy. No self-respecting

Government could afford to be treated with such contumely. Such, at least, was the view of the Government's supporters in Parliament; and, when Mr Asquith, in his sternest and most dignified tones, declared in the House of Commons on the 27th that:

'In view of this grave and unprecedented outrage, the House may be assured that His Majesty's Government will take, without delay, appropriate steps to vindicate the authority of the law and protect officers and servants of the King and His Majesty's subjects in the exercise of their duties and in the enjoyment of their legal rights,'

the Liberal benches showed in no uncertain fashion how bitterly they would have resented any other answer. Here, if ever, was an opportunity for the Opposition to strike home. That the Prime Minister would really dare to take steps to punish any of the organisers of the 'outrage' or to seize the arms which, for a week, were being busily distributed by motor car round the province, was inconceivable to any one who understood either Mr Asquith or the temper of Ulster. Obviously the thing for the Opposition to do was to pin Mr Asquith down to his declaration, defy him to make it good, and wait for the inevitable, and probably fatal, storm which would burst over his head when his indignant followers learnt that he could not and dare not act. To bring Mr Asquith into a position where there was no choice between coercion and open avowal of impotence was now the only chance of precipitating a Parliamentary crisis and so averting the steady drift towards civil war in Ireland while issues were being evaded in Parliament.

But such tactics required a certain amount of nerve, and that quality the Opposition has not displayed very conspicuously. It had already failed to make any use of the Radical storm against the Government over its surrender to General Gough, for fear of provoking the cry of 'the Army against the People.' On similar, though undoubtedly much stronger grounds, it had just refrained from making use of the last constitutional weapon in its possession for forcing an election, the rejection or amendment of the Army Annual Bill in the House of Lords. It now shrank from using the obvious opportunity presented to it—if, indeed, it ever realised

there was one. For so great is the natural reverence for authority in the Unionist Party and so strong its instinctive inclination to stand on the defensive, that the general attitude of Unionists in Parliament was to regard the gun-running as an incident which, however justifiable and necessary, had come at an awkward moment, and to hope that as little as possible would be said about it—not realising that that was precisely what the Government itself desired.

Accordingly, when Mr Austen Chamberlain moved his motion on the 28th, he attempted to ignore the whole incident as a 'subsequent fact' with which he was not called upon to deal. The case for enquiry to which he confined himself was strong in itself and admirably stated. But Mr Churchill, who replied to him, though afterwards practically abandoning the whole line of defence originally taken up by Ministers, simply brushed it aside as 'a most impudent demand' under the circumstances, and as 'uncommonly like a vote of censure by the criminal classes on the police.' And, to confuse the issue still further, he concluded an hour of contemptuous invective by a few vaguely conciliatory sentences, in which he asked Sir Edward Carson to state the amendments which he required to safeguard the dignity and interests of Protestant Ulster and in return for which he would be prepared to use his 'influence and good will to make Ireland an integral unit in a federal system.' It was a masterly piece of tactics.

The Unionist leaders were in a quandary. If they had been less nervously anxious not to be thought unconciliatory, they might have insisted at once that the issue raised was inappropriate to the debate, and that they could only consider it if introduced subsequently and on the authority of the Prime Minister. If, on the other hand, they had had a clearer idea of what they themselves meant by conciliation and were prepared to consider a federal or devolutionary solution, they might have seized the occasion to adjourn the vote of censure and force the Government to discuss that solution seriously. As it was, they continued the debate, blending their attack, now deprived of much of its sting, with assurances of their desire to find a peaceful settlement. Mr Balfour concluded what would otherwise

have been a most effective indictment with a pathetically eloquent passage which was generally taken to mean that, in order to avoid civil war, he would reluctantly acquiesce in Home Rule for Ireland outside Ulster. Sir Edward Carson, in a speech of studied moderation, declared his willingness to accept any scheme which gave Ulster equal treatment with the rest of the United Kingdom, or excluded her pending such a reconstitution on federal lines as would satisfy that standard, and pending such conditions of government in Nationalist Ireland as would justify Ulster in consenting to the reunion of Ireland as an integral unit in the federal scheme. Mr Bonar Law, after somewhat apologetically pressing his charges against the Ministry, expressed his concurrence in the views of his colleagues and his readiness for a renewal of 'conversations,' even offering to stand aside if, after his charges of untruthfulness against the Prime Minister, the latter preferred not to negotiate with him.

Mr Asquith was in his element. After so discursive a debate it was easy for him to ignore most of the charges brought against him and to dismiss the whole motion as 'flimsy and contemptible.' As for the so-called offer of peace made by his colleague, he neither endorsed nor expanded it, but contented himself with 'taking note' of Sir E. Carson's statement and of Mr Balfour's admissions. After all, there was no need, from his point of view, to say more about it. To have taken it up seriously would have involved raising that direct issue with Mr Redmond which he was resolved to evade as long as possible. Meanwhile the 'red herring' had admirably served its immediate purpose. It had dissipated the Unionist attack. No less important, it had diverted the attention of Liberals from the gun-running incident, and afforded an excuse for postponing and, in the end, quietly dropping those punitive measures against Ulster which Mr Asquith had announced to humour his supporters, but which he had no notion of putting into effect. Even so there was considerable muttering in the Liberal ranks. Mr Neil Primrose and others went so far as to get up a deputation to the Prime Minister and to organise meetings in the country to demand the enforcement of the law; but the movement failed to become formidable before it was 'side-tracked'

by the growth of the Nationalist Volunteers. Unionists, on the other hand, were occupied for some days in internal discussions between those who persuaded themselves that a genuine offer had been made and that there was a real opportunity of coming to a settlement on 'federal lines,' and those who either disbelieved in the possibility of compromise at that juncture or in its desirability as long as a separatist Home Rule Bill held the field. When it became clear that the Government were making no efforts to renew conversations, these discussions died down.

The third reading of the Bill was now impending. Before it passed there was, under the peculiar provisions of the Parliament Act, an opportunity of accompanying it on its passage to the House of Lords with 'suggestions,' which, if there agreed to, could be incorporated in the measure. The suggestion stage confronted Mr Asquith with the awkward necessity of having to decide definitely what suggestions for compromise he could or could not accept. True to his natural instinct for postponing a decision, he found a way out by announcing that he would have no suggestion stage at all, but would introduce a separate Amending Bill later on, the two Bills to go up for the Royal signature together. This idea had originally emanated from the Unionist side as a way of enabling the House of Lords to provide for the exclusion of Ulster while still leaving them free to vote against the second reading of the main Bill, which would then only be passed by the *force majeure* of the Parliament Act. Consequently the Unionist Party had no ground of complaint against this change of procedure in itself. But, when they learnt on May 21 that they were to discuss the third reading of the Home Rule Bill without being vouchsafed any information as to the nature of the Amending Bill which was to be introduced in the House of Lords at some later date, even their habitual mildness gave way.

They decided suddenly and spontaneously to stop a debate which could only be farcical; and, as soon as Mr Campbell rose to move the rejection of the Third Reading from the Unionist front bench, his own supporters prevented his being heard by a quiet but persistent chorus of 'Adjourn, adjourn.' After a few minutes the

Speaker turned on Mr Bonar Law and asked if it was with his assent and approval that the tumult was taking place. Mr Lowther, no doubt, hardly realised at the moment how awkward such a question was for a party leader, bound, in loyalty to his followers, not to repudiate their action, even if, as was the case, he had not been responsible for it. Mr Bonar Law instantly replied that he would not presume to criticise what the Speaker considered his duty, but that he knew his own, and that was not to answer any such question.

It was generally rumoured that the Speaker felt his position so gravely prejudiced by the incident that he was meditating resignation if the disturbance continued. But, before the House met again to discuss Home Rule on Monday, May 25, an arrangement was come to which was calculated to get over the difficulty. At the opening of business the Speaker rose and frankly expressed his regret at using an expression which seemed to convey an imputation he had not meant to make. At the same time he suggested that the Prime Minister might give some further information with regard to the Amending Bill. Mr Bonar Law thanked the Speaker for his generous statement and expressed his anxiety to support the dignity of the Chair. Mr Asquith, by way of giving some sort of answer to the Speaker's appeal, said that the Amending Bill would 'give effect to the terms of agreement' if an agreement were arrived at, and, if not, would embody his proposals of March 9 as a basis for further discussion. Mr Bonar Law then rose to speak on the Third Reading and suggested that his followers should let a division be taken without more ado and thus ring down the curtain on a contemptible farce. In this somewhat tame fashion the Home Rule Bill finally left the House of Commons.

As a measure meant to be put into effect the Bill had, indeed, long since been a farce. By allowing the Covenanters to organise their measures of resistance, the Government had abandoned all hope of enforcing its provisions in Ulster. But events were now taking place in the rest of Ireland which would soon make it equally impossible to enforce its provisions in the rest of Ireland. So far back as November last a small force of Irish National Volunteers was organised in Dublin

by Captain White, largely with a view to keeping some discipline and self-respect among the strikers. The idea was taken up by a little group of professors, retired officers and others, mostly of an independent attitude in politics, and in many cases supporters of the extreme Nationalist or 'Sinn Fein' movement. The professed objects—to strengthen independence of character, to awaken national feeling and defend Ireland's rights as a nation—were too vaguely idealist to recommend them to the routine minds of the Nationalist politicians. But the movement, though frowned upon as 'premature' and tactically inconvenient for a party which in Parliament was busy dwelling upon its loyalty and its anxiety for nothing more than a thoroughly subordinate Parliament in Dublin, went on slowly spreading. By the beginning of March the force had 32 branches and a membership of over 7000. The Curragh incident and the gun-running effectively drew public attention in Ireland to the reality and strength of the Ulster Volunteers, and kindled a spirit of emulation in which there was, for the moment at any rate, quite as much of sympathetic admiration for Irishmen who had successfully defied the British Government as of conscious hostility to the resolute opponents of Home Rule. By the end of May there were over 100 branches with a membership variously given as from 15,000 to 30,000.

The official Nationalist Party, having failed to discountenance the movement, now rapidly fell into line with it. The Nationalist members, visiting their constituents during the Whitsuntide recess, attended parades and made enthusiastic speeches. But Mr Redmond was quick to perceive that the Volunteer movement might soon become a rival and a menace to the Parliamentary Party unless it were directly under his control. On June 10 he issued a manifesto suggesting that the existing provisional Central Committee of twenty-five members should be strengthened by the addition of another twenty-five nominated by the Nationalist Party, failing which he indicated that the Party would take measures to secure control in the different counties and ignore the central body. The Provisional Committee collapsed after a short struggle. With the whole party machine behind it, the movement

spread like wildfire; and by the end of June it was estimated that over 100,000 men had joined.

As a military force the National Volunteers need not at present be taken very seriously. Individual companies contain a good sprinkling of ex-sergeants and reservists and may have reached the level attained by the Ulster Volunteers in the early months of the Ulster movement. Except for revolvers and shot-guns, the force is still almost completely unarmed; and one of Mr Redmond's first tasks on taking control was to issue an appeal to America for funds to provide arms. But the chief difference between the National Volunteer Force and the Ulster Volunteer Force is that the former is simply a collection of units of very varying degrees of discipline and efficiency, while the latter was organised from the first as an army, with a military headquarters' staff, a strong cadre of professional officers, and an organisation for intelligence, signalling, and transport, the efficiency of which was strikingly displayed on the occasion of the gun-running. But politically the National Volunteers have changed the whole situation. The avowed object of the movement has been, from the first, to make the force permanent—in direct violation, needless to say, of the provisions of the Home Rule Bill—to serve as a bulwark against any British encroachment upon the powers granted by the Home Rule Bill, and as a lever for extorting fresh concessions till Ireland should be a completely independent power. With this object the Nationalist Party, in throwing themselves into the movement, have frankly identified themselves. Mr Devlin, speaking on June 8 at Toomebridge, said:

'Once the Home Rule Bill is on the Statute Book, the duty of our people would be to see that it should be kept there. If any attempt were made to deprive them of the benefits of its provisions, those responsible would have to reckon not with the Irish Party and a united nation, but with an armed and disciplined force of probably a quarter of a million Irish National Volunteers.'

The same idea runs through the speeches of all the Nationalist members on this subject. But that obviously nullifies altogether the 'reserved rights,' the power of veto, the power of overriding legislation, the whole system of 'safeguards,' in fact, to which Ministers have

pointed as an answer to every criticism on their Bill in the past. The National Volunteers are, indeed, rapidly sweeping the Home Rule Bill out of the region of realities and reducing matters to the simple and direct issue between union and separation. Whatever difficulties their existence might cause to a Unionist Government if the national will is declared in favour of maintaining the Union, they are as nothing to the difficulties and dangers they will certainly create if Home Rule is established in any part of Ireland. This aspect of the matter, however, is not the one that has appealed to the Liberal Party as a whole, that Party having simply welcomed the appearance of what it believes to be an effective counterpoise to the Ulster movement, and an insuperable barrier to the maintenance of the Union in the future. As for the Government, its impotence in dealing with the Ulster Volunteers has ruled out of court any suppression of the National Volunteers even if that idea had ever been entertained. It has, in fact, completely abdicated all control over the situation so far as Ireland is concerned.

To crown all, it has now also abdicated all control over the parliamentary situation. The effort to arrive at an agreement before the introduction of the Amending Bill in the House of Lords, which was indicated by Mr Asquith on May 25, was never made. It is not unreasonable to conjecture that the cause of this failure on Mr Asquith's part, either to find a way of compromise himself or even to discuss its possibility, was due to his inability to induce Mr Redmond to consider any proposals going beyond those of March 9.

These proposals were accordingly introduced into the House of Lords on June 23 as the 'Government of Ireland (Amendment) Bill.' The gist of these proposals is that individual counties and county boroughs in Ulster are to be given the opportunity of securing, by referendum, 'exclusion' for six years from the direct control of the Dublin Parliament and the right to be governed meanwhile by a makeshift administration under the Lord-Lieutenant—in other words, under the indirect control of the Dublin Parliament, which could always make the Lord-Lieutenant's position impossible if he attempted to administer the 'excluded' counties on

lines of which the Nationalist majority disapproved. In fact, it is not too much to say that the principle of the so-called exclusion is that the excluded counties are to be represented in a Parliament at Westminster which will not govern them, and to be governed by a Parliament in Dublin in which they will not be represented.

To criticise so ludicrous a scheme in detail is scarcely worth while, as it clearly has only been put forward in order to avoid a too naked confession of the actual situation, which is that Mr Asquith has no idea what to do, but hopes that the Opposition in the House of Lords may either find a solution for him, or put themselves in a false position, or, failing any other result, at least give him a few weeks' breathing space for further procrastination. The most obvious and natural course for the Unionist Peers would have been to refuse flatly to relieve the Government of its responsibility, reject the Amending Bill or else let it pass as it stood, and thus force the Government to become responsible for its own solution in the House of Commons. But, in view of the need for convincing public opinion that Unionists have left no resource untried to avert disaster, and for strengthening the King's hand if the final act of initiative in preventing civil war should yet have to be left to him, the decision of the Unionist Peers to face the risk of misconstruction involved in putting forward their own scheme for avoiding civil war was probably the wisest.

That scheme, as Lord Lansdowne made clear on the Second Reading of the Amending Bill on July 1, would be confined to amendments making the Bill 'a real and adequate Exclusion Bill . . . adequate in regard to the area excluded, to the duration of exclusion, and to the conditions of government accorded to the excluded area.' The official Opposition amendments since put down, excluding the whole province of Ulster, placing it under the Irish Secretary instead of the Lord-Lieutenant, and abolishing the time limit, keep strictly within those limitations. There was, Lord Lansdowne explained, no intention of essaying the hopeless task of revising and recasting the Home Rule Bill itself, and no abatement or qualification of Unionist opposition to that measure. There was no question of a settlement on the Home Rule issue, only of patching up a 'makeshift

emergency measure' to avert civil war. A permanent division of Ireland, he had already frankly declared, was a hateful solution; that Parliament should have been 'driven to it for fear of worse things' was, in his view, 'the worst count in the indictment which can be made against the Government.' And, in an eloquent concluding passage, he added:

'If at the eleventh hour the noble Marquess opposite, or indeed anyone else, were to offer to us a better way, we should be ready to explore it. We should do so recognising to the full . . . that there is a great Irish problem to be solved, that it requires investigation, that it requires to be handled with courage and with sympathy, and that we cannot fall back upon a mere policy of negation and destructive criticism. For the moment there is a definite advance, I am afraid with slender hope of success, along the narrow path which this Bill points.'

The hope of success along that path is, indeed, slender. Readers of this Review are well aware that we have throughout regarded the concentration of the Unionist Party upon the exclusion of Ulster as a grave error of judgment. It is a policy which can lead to no satisfactory or permanent settlement. And it is a policy which, while affording to each side the easiest opportunity of making offers which can be quoted as evidence of a desire to conciliate, in reality does least to bring real agreement about, because it makes no attempt to bridge over, but only to conceal or postpone the conflict of underlying principles. The course of events during the last six months has done much to justify this criticism. The Government has played with the idea of exclusion. But, as its proposals have shown, it has never abated by one jot or tittle its demand that Ulster should in fact, sooner or later, be subjected to a Nationalist Executive in Dublin enjoying all the powers given under the present Home Rule Bill and any further powers it may subsequently extort. If it did so now it would almost inevitably have to break with Mr Redmond. For it is hardly conceivable that Mr Redmond should acquiesce in an arrangement which involves what Mr Austen Chamberlain recently described as the statutory negation of the whole Nationalist claim, or that he should be

allowed to acquiesce in it by the National Volunteers, whose avowed object is to maintain the unity as well as the independence of Ireland.

On the other hand, Unionists have never admitted that the concession of exclusion would in any way affect their opposition to Home Rule, but only that it would keep that opposition within constitutional lines by saving Ulster from the necessity of taking measures of active resistance which the Unionist Party is pledged to support. But they realise well enough that, in present circumstances, the passage of an Exclusion Bill would make further opposition infinitely more difficult. Unless the Unionist leaders declared from the outset that they still meant to fight the coming election on the Home Rule issue and meant, if returned to power, to repeal the Bill, they would almost inevitably drift into a position of *de facto* acquiescence. The result of that acquiescence would be a shock to the rank and file of the Party so severe as to destroy its whole moral cohesion if not to wreck it altogether. Consequently, if an agreement on exclusion can only be regarded by Unionists with the gravest misgiving on the actual merits of the solution, they are bound to dread it, from the party point of view, as an unmitigated disaster. With such a moral atmosphere on both sides it is difficult to imagine that even the imminent menace of civil war will lead to any agreement over the Amending Bill.

What then? Is there no hope of finding a 'better way,' such as Lord Lansdowne referred to? The way exists if only statesmanship will cease to look for a compromise between fundamentally antagonistic policies and set to work to discover a new solution on broader lines which may preserve at any rate the essentials of what the great majority of patriotic citizens care for on one side or other, and if it will abandon the sterile methods of organised party conflict for the more fruitful method of co-operation. The idea of a National Convention, convened on non-party lines, and empowered to deal not only with the question of the feasibility or otherwise of any system of provincial devolution in the United Kingdom, but also with the reconstitution and reorganisation of our whole legislative machinery, has been continuously urged in the pages of this Review.

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And coupled with it has been the suggestion that, if such a Convention could never lead to any result even remotely resembling the present separatist measure of Home Rule for Ireland, it might at any rate be possible, through the machinery of a separate Irish Convention, to secure Irish unity and a system of government, within the limits assigned by the National Convention, worked out by Irishmen themselves. These ideas have certainly gained ground recently. The general idea of settlement by convention was urged by Lord Grey on the introduction of the Amending Bill, and has since received the endorsement of 'The Times.' The Archbishop of York, on the Second Reading, suggested the appointment of two statutory commissions, one for Ireland and one for the United Kingdom; and the underlying idea of this proposal has found considerable favour in the sight of Liberals and even of independent Nationalists like Mr O'Brien, as well as of Unionists.

But it is necessary to face the facts of the situation. The conditions for such a settlement do not exist at this moment. Settlement by co-operation and consent involves as a preliminary the abandonment of the present Home Rule Bill. To that neither Mr Redmond nor the present Government can accede as long as they are in office. The fall of the Government and the displacement of Mr Redmond from his present position of irresponsible and arbitrary power, or else the formal endorsement of their policy by the deliberate decision of the nation, are indispensable prerequisites of settlement. After all, even a Convention cannot compose differences and find an agreed constructive solution unless it has some evidence of the general trend and direction of the national will. The one thing essential then is still the decision of the citizens of the United Kingdom at an election. For this all men who desire a real and permanent settlement and are not prepared to see the United Kingdom plunged in civil war or distracted for a generation by the consequences of an unworkable compromise, should now unite their efforts regardless of party. If the Unionist leaders, by pledging themselves to the method of eventual settlement by convention, show clearly that they are fighting not for party advantage but for a national solution, they will

at once enlist on their side an immense mass of moderate opinion. But they must also realise that it is at least as essential to show the determination to fight and win as to prove the moderate use they mean to make of their victory. They must make it absolutely plain beyond all misconception that, whether a makeshift truce is patched up over the Amending Bill or not, whether the Home Rule Bill goes on the Statute Book or not, they refuse absolutely to accept separatist Home Rule for any part of Ireland as an accomplished fact, and are determined that the main issue of union or separation shall be decided by the British people.

How that issue is to be brought before the people it is impossible to say at this moment. What matters is that there should be the determination to force the issue at all hazards, and the consciousness of right and moderation behind it. The decision on great issues like this does not depend on parliamentary conditions, nor even on the provisions of the Parliament Act. It depends on the character and will of the men concerned. Is it conceivable that Mr Asquith, whose whole policy throughout this crisis has been to evade coming to any decision whatever, would really force the issue of civil war if that issue were directly thrust before him, and the Unionist leaders refused to let him evade or postpone it? And, if it were, is it really conceivable that, in such circumstances, the Sovereign would deliberately sign a warrant for civil war among his subjects sooner than infringe the constitutional precedents of normal times? That would indeed be the final *reductio ad absurdum* of constitutional monarchy. The truth is that what the situation needs to-day is no longer political controversy or manoeuvring but far-seeing moderation linked with unflinching courage. England has just lost one of the rare men who have combined those qualities in their highest form. We can but pray that Mr Chamberlain's death may yet inspire Unionist leadership with something of his constructive statesmanship and of his unconquerable spirit.

